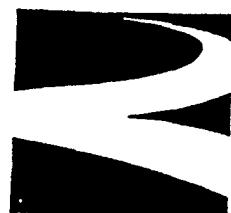


**Status Report on Technical Studies
for the
Storage and Conveyance Refinement
Process**

DRAFT

**Delta Simulation Model Studies
of
Alternatives 1A, 1C, 2B, 3E, 3X**

January 16, 1998



**CALFED
BAY-DELTA
PROGRAM**

CALFED 954

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D-009623

Date: January 16, 1997

To: Stein Buer, CALFED

Francis Chung
Delta Modeling Section
Modeling Support Branch

Subject: Model Studies of CALFED Alternatives

Per your request, Delta alternatives 1A, 1C, 2B, 3E, and 3X have been analyzed with DWR's Delta Simulation Model, DWRDSM2, using new DWRSIM-produced Delta hydrologies 516, 531, 532, 551, and 567 respectively. These alternatives were described in *Status Reports on Technical Studies for the Storage and Conveyance Refinement Process*, dated March 20, 1997, and *Facility Descriptions and Updated Cost Estimates For the In-Delta Project*, dated June 20, 1997. Presented in this report are Deltawide hydrodynamics and electrical conductivity for the CALFED alternatives. Specifically, this report includes:

- * A brief description of these Delta alternatives and the Delta hydrology and operating assumptions used.
- * Delta modeling results in terms of Delta flows, Delta electrical conductivity, and water levels in the south Delta.

The style of presentation of the modeling results is similar to that found in CALFED's reports, *Status Report on Technical Studies for the Storage and Conveyance Refinement Process: Delta Simulation Model Studies of Alternatives 1A, 1C, 2B, 2D, 2E, 3E*, August 4, 1997 and *Status Report on Technical Studies for the Storage and Conveyance Refinement Process: Delta Simulation Model Studies of Alternatives 3A, 3B*, October 2, 1997.

These model results will be posted on the Delta Modeling Section's WWW page, <http://wwwdelmod.water.ca.gov/CalFed>. If you have further questions, please call me at 916-653-5601.

Attachment

cc: George Barnes, Katherine Kelly

Introduction

DWR Modeling Support Branch has been conducting computer modeling studies to support CALFED. Using DWRDSM2, Delta simulations of CALFED's Alternative 1A, Alternative 1C, Alternative 2B, Alternative 3E, and Alternative 3X have been completed. These simulations used new DWRSIM results to describe Delta inflows and exports under the various alternatives over an extended period of time. The purpose of this report is to describe and present these study results.

Presented are a description of general Delta modeling assumptions, a description of the Delta hydrology and operating assumptions for each alternative, and a summary of the modeling results. The format of the presentation is similar to that shown in previous reports, **Status Report on Technical Studies for the Storage and Conveyance Refinement Process: Delta Simulation Model Studies of Alternatives 1A, 1C, 2B, 2D, 2E, 3E**, August 4, 1997 and **Status Report on Technical Studies for the Storage and Conveyance Refinement Process: Delta Simulation Model Studies of Alternatives 3A, 3B**, October 2, 1997. Delta modeling results are presented with respect to Delta flows, Delta electrical conductivity representing water quality, and water levels in the south Delta. In addition to monthly average electrical conductivity throughout the Delta, the monthly average X2 location for each alternative is presented. Results will be provided at Delta Modeling Section's web page at <http://wwwdelmod.water.ca.gov>.

CALFED Alternatives

Alternative 1A

Alternative 1A assumes the existing Delta geometry with no changes to any Delta channels or structures (Figure 1). No temporary structures in the south Delta or fish control structure at the head of Old River are installed.

The hydrology used for evaluating Delta impacts came from DWRSIM study 516. See DWR's web page site at <http://wwwhydro.water.ca.gov> for a detailed description of this study.

Alternative 1C

Alternative 1C assumes Delta changes consistent with the preferred alternative for the *Interim South Delta Program Draft Environmental Statement / Environmental Report*, July 1996 (Figure 2). A new forebay intake structure with 30,000 cfs capacity is installed in the northeast section of the forebay. Old River from Victoria Canal to Woodward Canal is dredged. Permanent flow control structures are installed in Old River, Middle River and Grant Line Canal. A permanent fish control structure is installed at the head of Old River. The Tracy Pumping Plant is connected to Clifton Court Forebay through an intertie.

The hydrology used for evaluating Delta impacts came from DWRSIM study 531. See DWR's web page site at <http://wwwhydro.water.ca.gov> for a detailed description of this study.

Alternative 2B

Alternative 2B includes the development of North Delta improvements, a 10,000 cfs screened Hood intake, and south Delta improvements (Figure 3). It assumes the same changes in the south Delta as described under Alternative 1C. In addition, up to 10,000 cfs of Sacramento River water is diverted from Hood to Snodgrass Slough while McCormack-Williamson Tract is flooded and channels in the Mokelumne River system are enlarged to accommodate the increased cross-Delta flow.

A 10,000 cfs pumping plant at Hood and a 10,000 cfs open channel from Hood to Lambert Road are assumed. Snodgrass Slough is enlarged by a 1000 foot levee setback in the southwest corner of Glanville Tract. The flow down Snodgrass Slough is then allowed to pass through a flooded McCormack-Williamson Tract at levee openings in the northwest, southwest and northeast corners of the island.

The Mokelumne River is widened 500 feet by levee setback in three reaches: from I-5 to New Hope Landing, the North Fork of the Mokelumne River from New Hope Landing to the south end of Tyler Island, and the lower Mokelumne River on the western portion of Bouldin Island.

The hydrology used for evaluating Delta impacts came from DWRSIM study 532. See DWR's web page site at <http://wwwhydro.water.ca.gov> for a detailed description of this study.

Figure 1
Alternative 1A

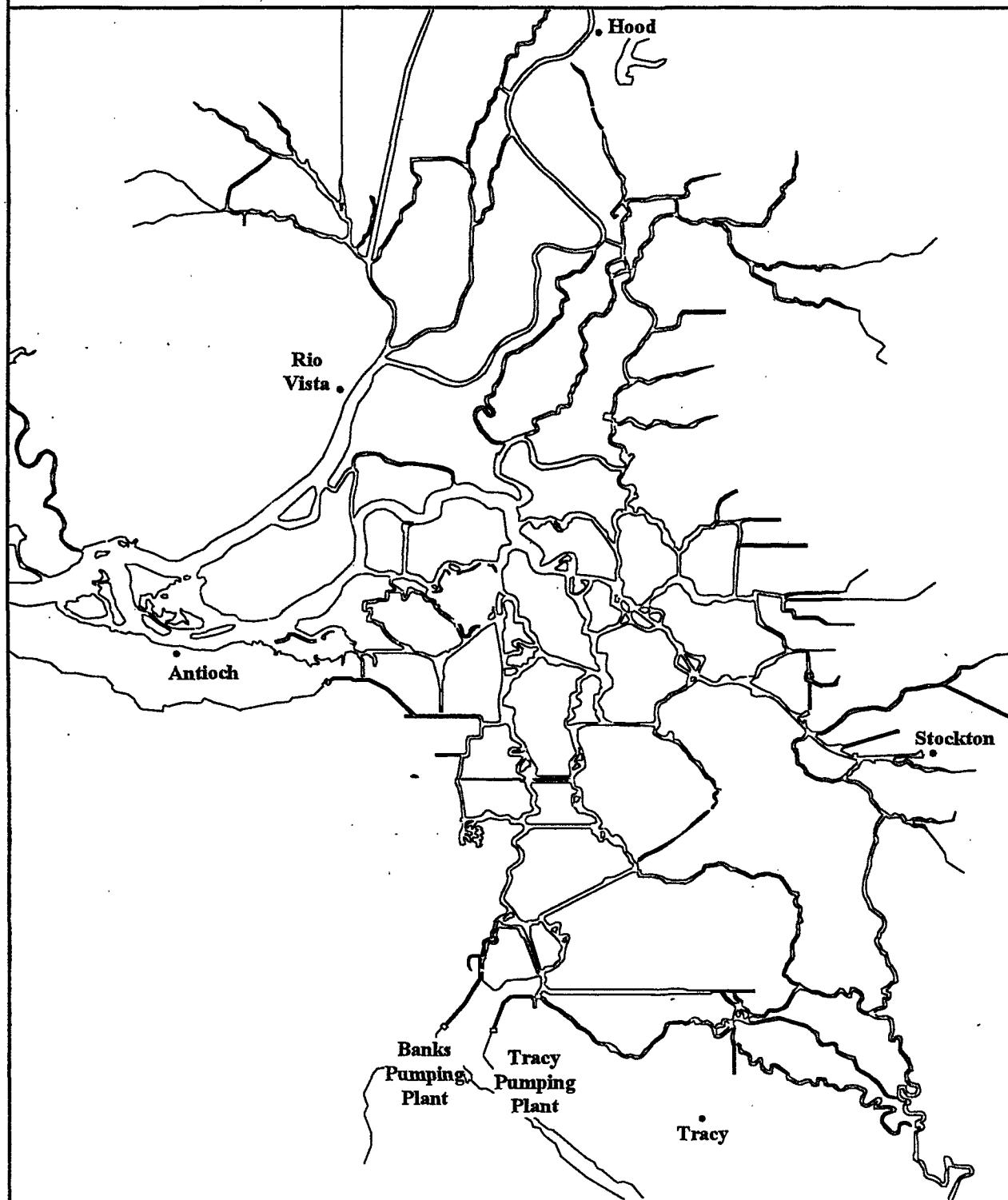


Figure 2
Alternative 1C

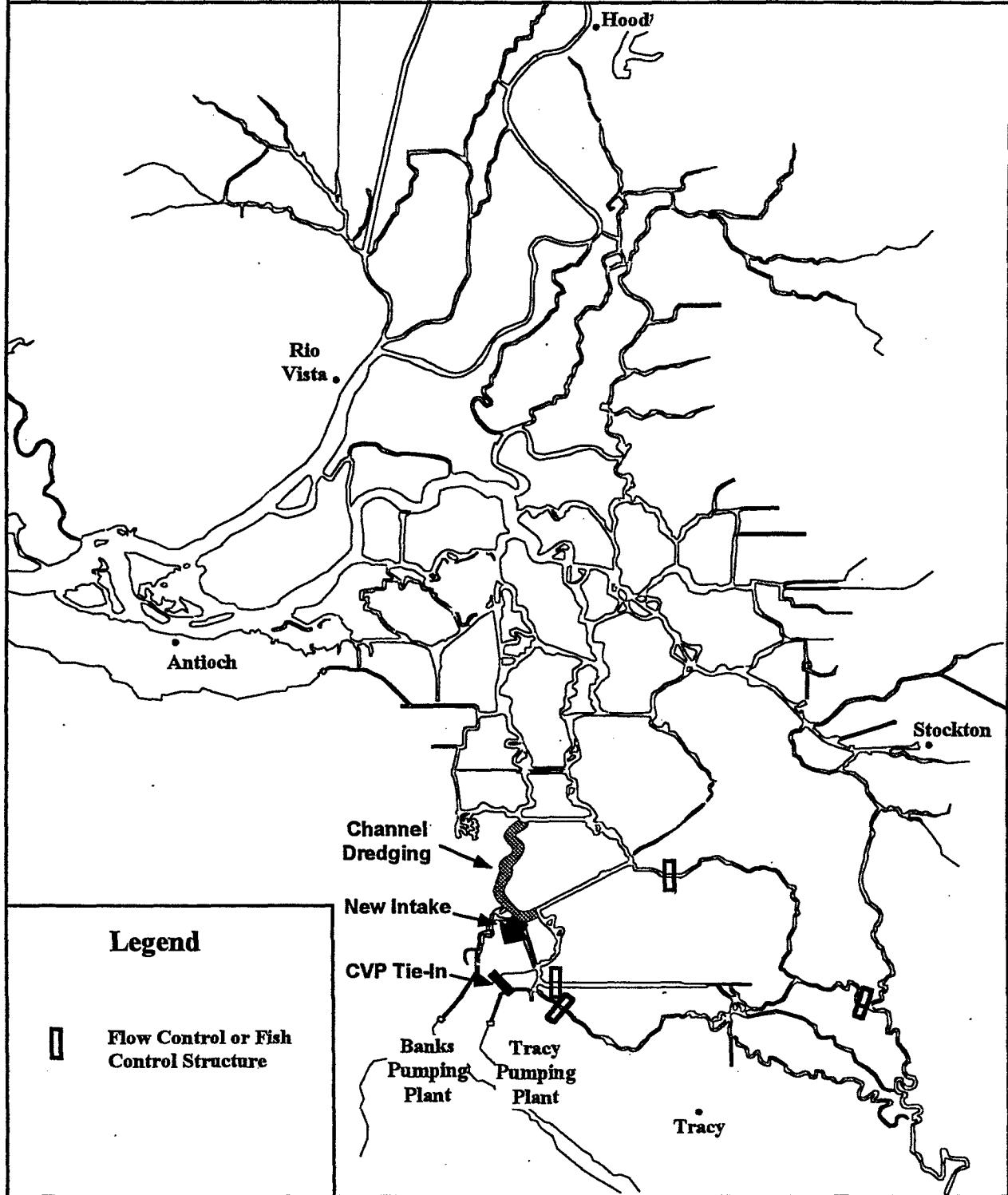
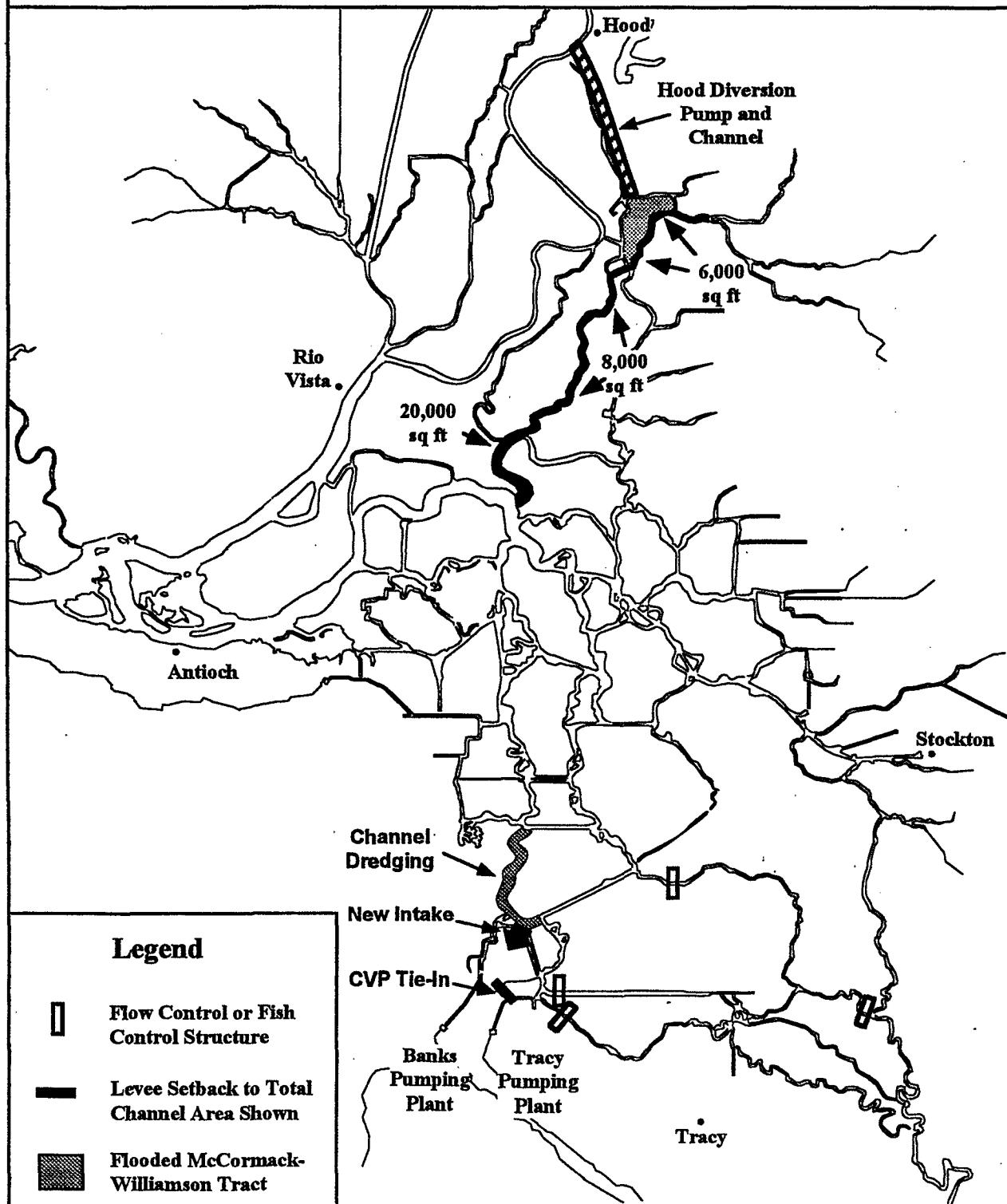


Figure 3

Alternative 2B



Alternative 3E

Alternative 3E includes a 15,000 cfs isolated facility with a diversion pump on the Sacramento River near Hood (Figure 4). Channel enlargements in the Mokelumne system and Clifton Court improvements are the same as in Alternatives 2B and 3X. A fish control structure at the Head of Old River is assumed installed and operating. This alternative is a modified version of the original alternative 3E because it provides irrigation water via pumps to service areas along the route of the isolated facility. The operation of the isolated facility, including its flows for Delta irrigation needs is listed in Appendix 4.

The hydrology used for evaluating Delta impacts came from DWRSIM study 551. See DWR's web page site at <http://wwwhydro.water.ca.gov> for a detailed description of this study.

Alternative 3X

Alternative 3X includes a 10,000 cfs isolated facility with a diversion pump on the Sacramento River near Hood (Figure 5). Channel enlargements in the Mokelumne system and Clifton Court Forebay improvements are the same as in Alternatives 2B and 3E. In addition, Alternative 3X uses Bacon, Woodward, and Victoria islands as an in-Delta storage component. The islands are used as reservoirs, storing water pumped into Bacon Island at its northeast corner. In-Delta storage is later released to Clifton Court Forebay directly to help meet Banks and Tracy pumping plants demands. Delta water is also diverted into Clifton Court Forebay through new intake gates located on the northeast corner of the forebay. The monthly operation of the isolated facility, in-Delta storage facilities, and the new Clifton Court Forebay intake gates are listed in Appendix 5. Alternative 3X also includes the south Delta flow control and fish control structures which are in Alternatives 1C and 2B.

The hydrology used for evaluating Delta impacts came from DWRSIM study 567. See DWR's web page site at <http://wwwhydro.water.ca.gov> for a detailed description of this study.

Figure 4
Alternative 3E

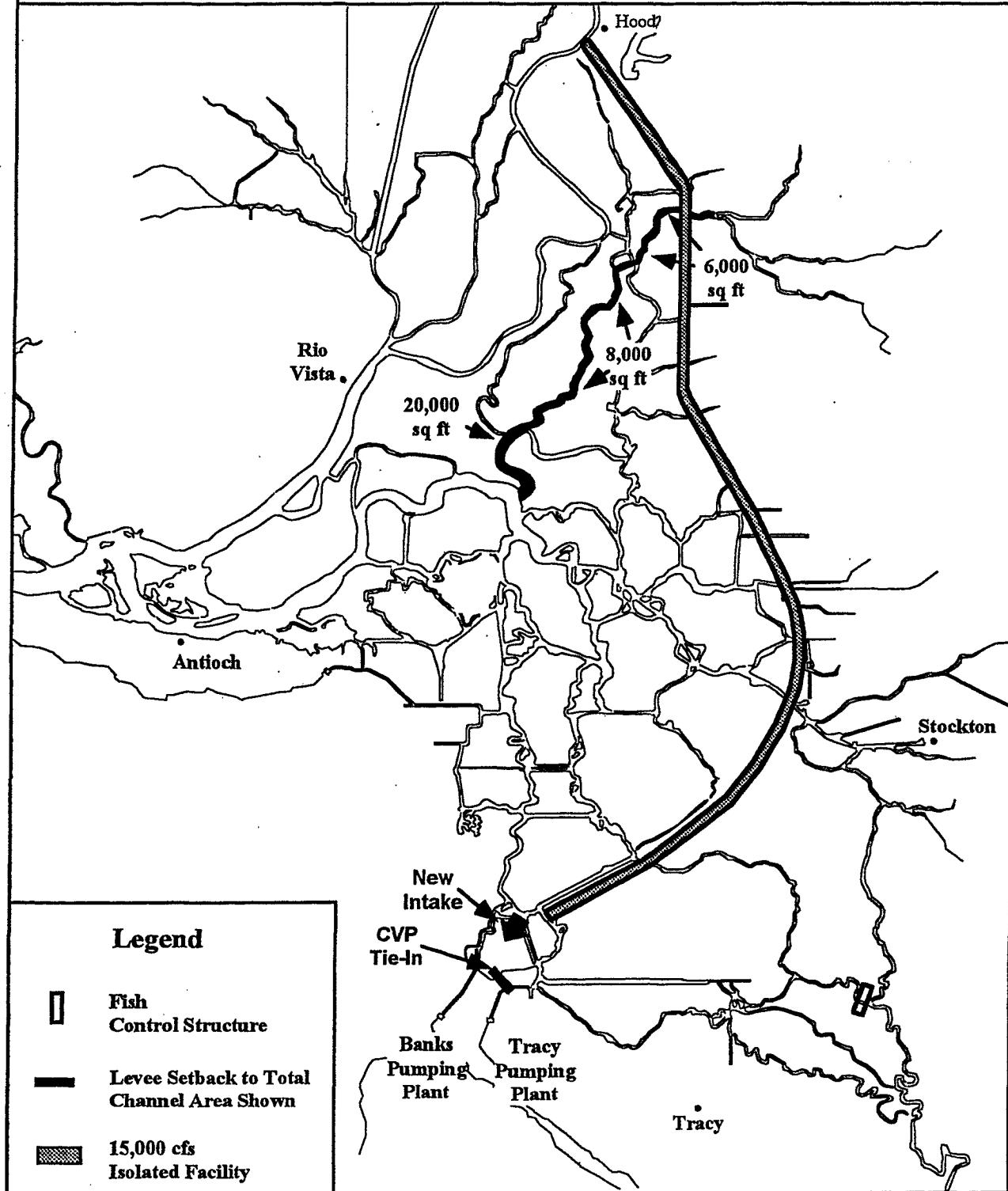
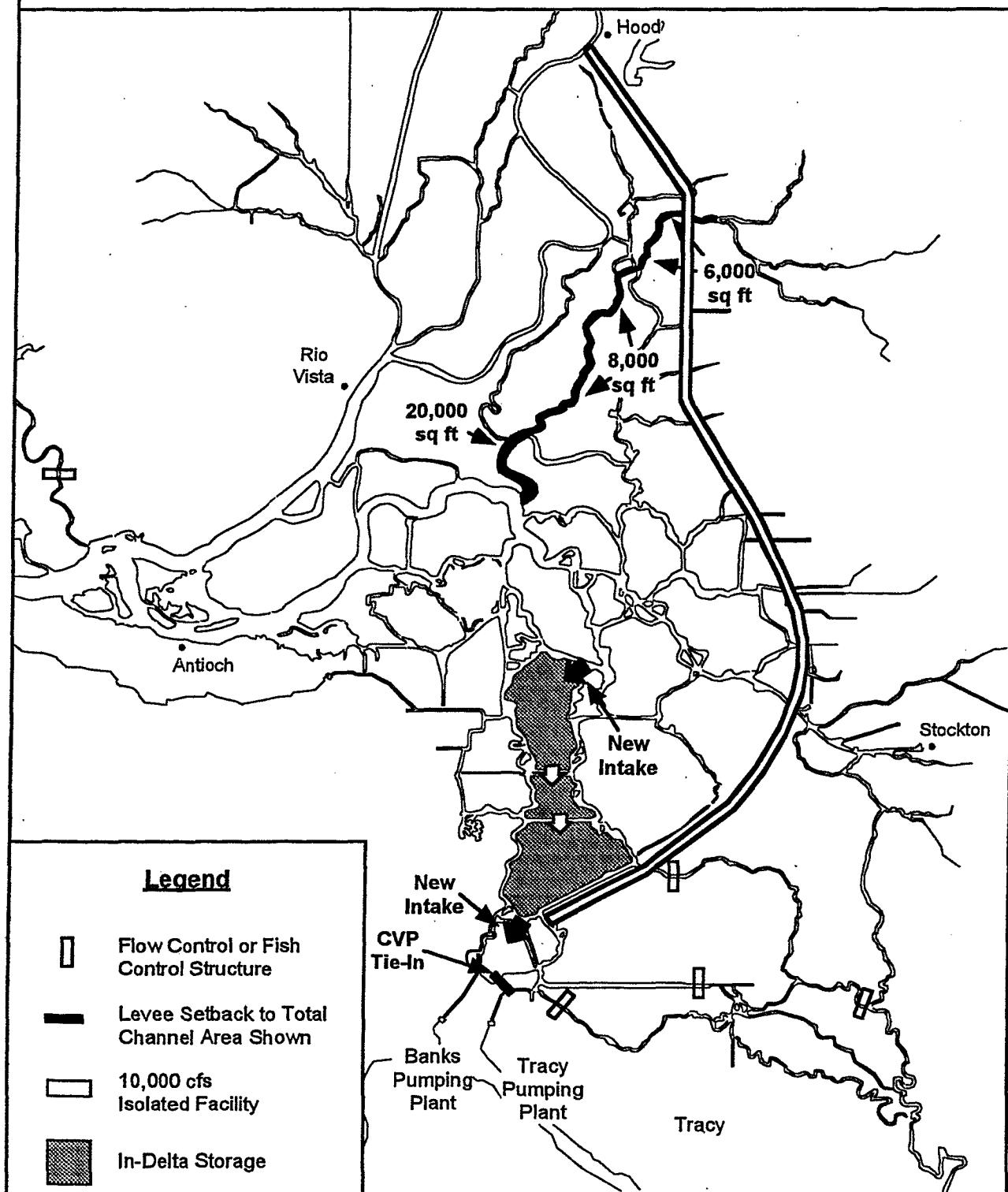


Figure 5
Alternative 3X



General Modeling Assumptions

Many of the modeling assumptions in this study concerning the Delta inflows and exports and operation of Delta facilities are unique to each alternative and are described later under each alternative. However, several features of modeling assumptions are true for each alternative and are described below.

Delta Boundary Conditions

The boundary of the Sacramento-San Joaquin Delta as modeled by DWRDSM2 consists of the Sacramento River at I Street, the San Joaquin River at Vernalis, and Carquinez Strait at Martinez.

Downstream Stage. The 19-year mean tide at Martinez is used to generate the Delta tidal action contributing to Delta hydrodynamics and water quality (Figure 6). This 25-hour sequence is repeated throughout the 16-year study period.

Delta Inflows and Exports. Delta inflows and exports are obtained from DWRSIM studies which varied for each alternative. The studies for Alternative 1A, 1C, 2B, and 3E are 516, 531, 532, 551, and 567 respectively. These studies assume a 2020 level of development. From these studies, the Delta hydrology from the 16-year period of 1976 - 1991 is used to evaluate Delta impacts. This period contains a wide range of Delta inflows and exports and includes all water year classifications (see Table 1). This period of study is also consistent with past Delta studies of CALFED alternatives (*Status Reports on Technical Studies for the Storage and Conveyance Refinement Process: Delta Simulation of Model Studies of Alternatives 1A, 1C, 2B, 2D, 2E, 3E, August 1997*). Important Delta boundary flows for each alternative are summarized in the appendices.

Delta Boundary Salinity. Salinity at the downstream boundary at Martinez and at upstream locations of Sacramento River at I Street, Yolo Bypass inflow to Cache Slough, San Joaquin River at Vernalis, and east side stream inflows needs to be determined for each study.

The salinity at Martinez is calculated by an artificial neural network model developed by DWR. This model derives electrical conductivity at Martinez as a function of Delta outflow. Since Delta outflow varies with each alternative, the downstream salinity varies with each alternative and is summarized in the appendices. Similarly, the electrical conductivity at Vernalis varies with the flow and flow source in the San Joaquin River. The electrical conductivity at Vernalis is generated by DWRSIM and is summarized for each alternative in the appendices. The salinity of other Delta inflows as well as Delta agriculture return flows are assumed constant between the alternatives and are listed in Table 2 (refer also to Figure 7 for Delta agriculture regions for return flow salinity).

Figure 6
19-Year Mean Tide at Martinez

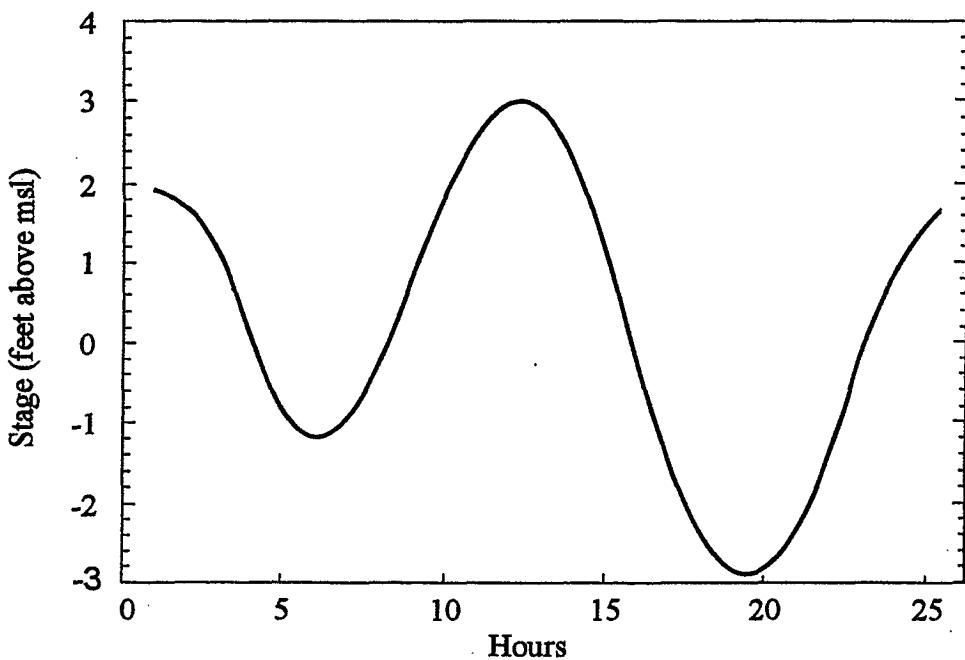


Table 1
Water Year Hydrologic Classification

Sacramento Valley San Joaquin Valley

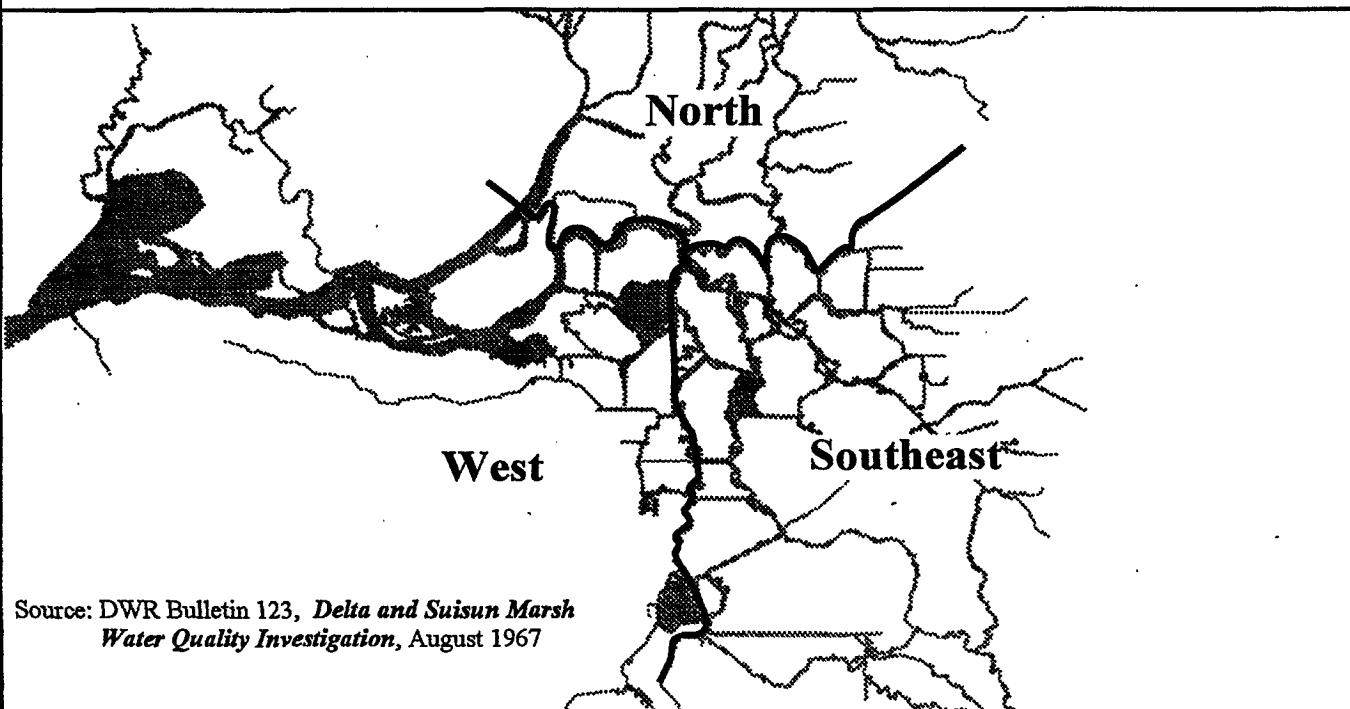
1976	Critical	Critical
1977	Critical	Critical
1978	Above Normal	Wet
1979	Below Normal	Above Normal
1980	Above Normal	Wet
1981	Dry	Dry
1982	Wet	Wet
1983	Wet	Wet
1984	Wet	Above Normal
1985	Dry	Dry
1986	Wet	Critical
1987	Dry	Critical
1988	Critical	Critical
1989	Dry	Critical
1990	Critical	Critical
1991	Critical	Critical

Table 2
Monthly Average Salinities as Input to the Delta
(Values in TDS)

Month	Delta Agriculture Return Flows (by region)			Sac River & Yolo Bypass	Eastside Streams
	South East	West	North		
Oct	1209	1575	609	100	85
Nov	1413	485	599	100	85
Dec	835	796	829	100	85
Jan	861	892	860	100	85
Feb	957	1051	908	100	85
Mar	1006	1051	788	100	85
Apr	1020	962	619	100	85
May	860	649	419	100	85
Jun	680	452	180	100	85
Jul	673	557	198	100	85
Aug	837	672	244	100	85
Sep	1005	540	332	100	85

Source: DWR Bulletin 123, Delta and Suisun Marsh Water Quality Investigation,
 August 1967.

Figure 7
Delta Regions for Agriculture Return Flow Salinity



Source: DWR Bulletin 123, *Delta and Suisun Marsh Water Quality Investigation*, August 1967

Delta Facilities Operation

Clifton Court Forebay Intake Gates. The intake gates to Clifton Court Forebay for project diversions from West Canal are assumed operated each month according to one of three strategies or priorities (Figure 8). The purpose of priorities 2 and 3 are to time the diversions into the forebay to minimize impacts to low water levels in nearby channels. Priority 2 is the more protective of water levels of the two priorities. The priorities of the forebay intake gate operations for each month are listed in the Delta operating parameters for each alternative in the appendices. Alternatives which assume a CVP tie-in into the forebay (Alternatives 1C, 2B, 3E, and 3X) sometimes require changing from priority 2 to priority 3 and from priority 3 to priority 4 due to greater demands on the forebay to provide water for both projects.

Suisun Marsh Salinity Control Gates. The Suisun Marsh Salinity Control Gates are assumed operating for all alternatives from October through May in Critical, Dry, and Below Normal water years. For all other times the gates are not operated and adjacent flashboards are removed.

Delta Cross Channel. For Alternatives 1A, 1C, and 2B, the Delta Cross Channel is assumed closed from November through June and at any other time the Sacramento River flow at I Street exceeds 20,000 cfs. Otherwise, the Delta Cross Channel is open. For Alternatives 3E and 3X, the Delta Cross Channel is closed in all months except July and August. Month to month operation of the Delta Cross Channel gates is shown under each alternative's description of Delta facilities in the appendices.

South Delta Flow Control Structures. Flow control structures on Old River, Middle River, and Grant Line Canal are installed and operated for Alternatives 1C, 2B, and 3X. For these alternatives, the structures are operated at the times shown in Figure 9 as long as San Joaquin River flow at Vernalis is below 20,000 cfs. When all three flow control structures are simultaneously operating, downstream flow through the structures is at times allowed to promote better circulation. The strategy of this special operation of the structures is shown in Figure 10 and Table 3). The monthly operation of the flow control structures for Alternatives 1C and 2B is listed in the appendices.

Fish Control Structure at the head of Old River. The fish control structure at the head of Old River is assumed installed and operating for Alternatives 1C, 2B, 3E, and 3X according to the schedule in Figure 11 as long as the San Joaquin River flow at Vernalis was less than 8,600 cfs. For higher flows, the flow control structure was assumed to be open causing no restriction to flow.

Figure 8
Clifton Court Forebay Intake Operation Priority

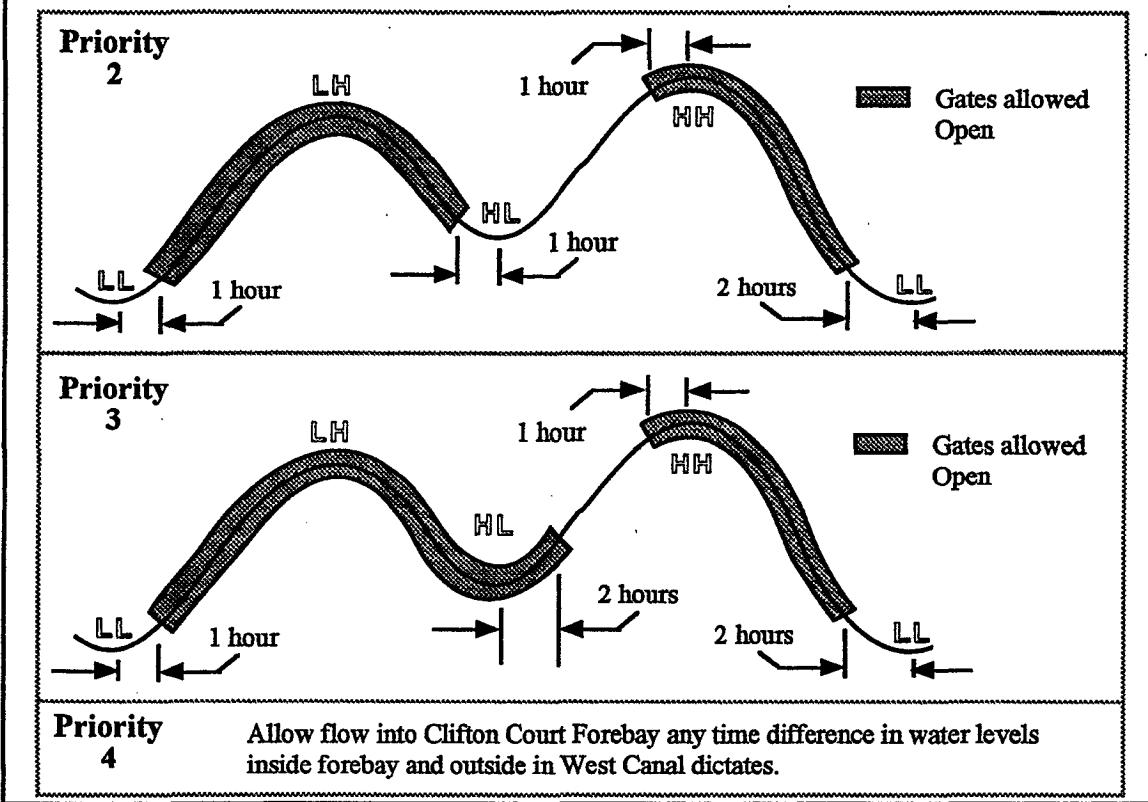


Figure 9
Seasonal Operation of Flow Control Structures

Structure	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Middle River	op.								operate			
Old River	op.								operate			
Grant Line Canal										operate		

Figure 10
**Special Tidal Operation
of South Delta Flow Control Structures**

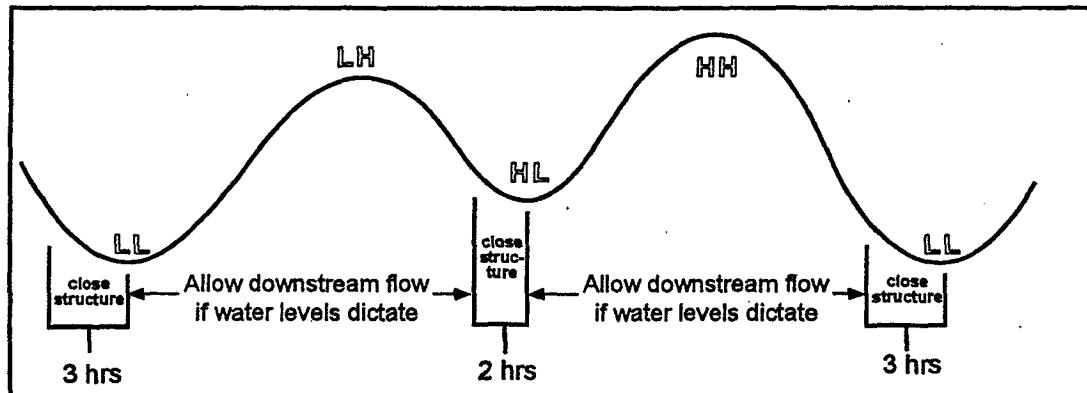


Table 3
**Conditions for Special Tidal Operation
of South Delta Flow Control Structures**

Structures w/special Operation	June	July	August	Sept
Grant Line Canal	QSJR < 600 cfs	QSJR < 750 cfs	QSJR < 1200 cfs	QSJR < 1200 cfs
Grant Line Canal Old River	600 cfs < QSJR QSJR < 2400 cfs	750 cfs < QSJR QSJR < 2000 cfs	1200 cfs < QSJR QSJR < 2600 cfs	1200 cfs < QSJR QSJR < 2600 cfs
Grant Line Canal Old R, Middle R	2400 cfs < QSJR	2000 cfs < QSJR	2600 cfs < QSJR	2600 cfs < QSJR

Figure 11
Seasonal Operation of Fish Control Structure

Structure	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Old R @ Head		operate						operate				

Highlights of Modeling Results

The appendices present monthly average flows and monthly average EC values at many locations in the Delta over the 16-year period of water year 1976 through 1991. Monthly minimum water levels in the south Delta are also presented over the same period. Using the average of the monthly results, some trends of the alternatives' impacts are highlighted below.

Flow

Monthly average flows are presented for each alternative in this report at 31 locations in the Delta. For the purpose of this brief evaluation, monthly average flows are averaged over the 16-year period and are presented at three locations: cross Delta flow, QWEST, and Rio Vista.

Cross Delta Flow. Cross Delta flow for all five alternatives is shown in Figure 12. Alternatives 1A and 1C have similar trends and magnitude as do Alternatives 3E and 3X. Alternative 2B tends to have the greatest cross Delta flow and Alternatives 3E and 3X has the lowest. Cross Delta flow for Alternatives 1A and 1C consists of the total flow in the Delta Cross Channel and Georgiana Slough. Alternative 2B diverts up to 10,000 cfs from the Sacramento River near Hood into Snodgrass Slough. This diverted flow is added to the flow in the Delta Cross Channel and Georgiana Slough to determine the total cross Delta flow. Alternatives 3E and 3X diverts up to 15,000 cfs and 10,000 cfs respectfully from the Sacramento River near Hood, however; this water is delivered directly into Clifton Court Forebay. This diverted water therefore is not counted as part of the total cross Delta flow for these alternatives. In addition, the Delta Cross Channel is closed for Alternatives 3E and 3X for all months except July and August.

QWEST. Monthly averaged QWEST for all five alternatives is shown in Figure 13. Alternatives 2B, 3E, and 3X significantly increase QWEST over Alternatives 1A and 1C. These increases often result in QWEST changing from negative to positive value (changing from net upstream or reverse flow to downstream flow) when compared to Alternatives 1A and 1C. QWEST is determined by the relationship between Delta inflow and exports from the south Delta. Alternative 2B accomplishes a significant increase in QWEST compared to Alternatives 1A and 1C by significantly increasing the cross Delta flow. Under Alternative 2B, Sacramento River water is directly diverted into the San Joaquin River by the Mokelumne system to meet south Delta pumping demands instead of traveling around Sherman Island. This dramatically increases QWEST compared to Alternatives 1A and 1C. Alternatives 3E and 3X accomplish a significant increase in QWEST by significantly reducing the exports in the south Delta compared to Alternatives 1A and 1C. Even though cross Delta flow decreases under 3E and 3X, meeting most or all of Banks and Tracy Pumping Plants demands without diverting from south Delta channels reduces the reverse flow in Delta channels towards the south Delta.

Rio Vista. Monthly averaged flow in the Sacramento River at Rio Vista for all five alternatives is shown in Figure 14. Flow at Rio Vista is highest under Alternatives 1A and 1C, corresponding to less water diverted upstream from the Sacramento River when compared to Alternatives 2B, 3E, and 3X.

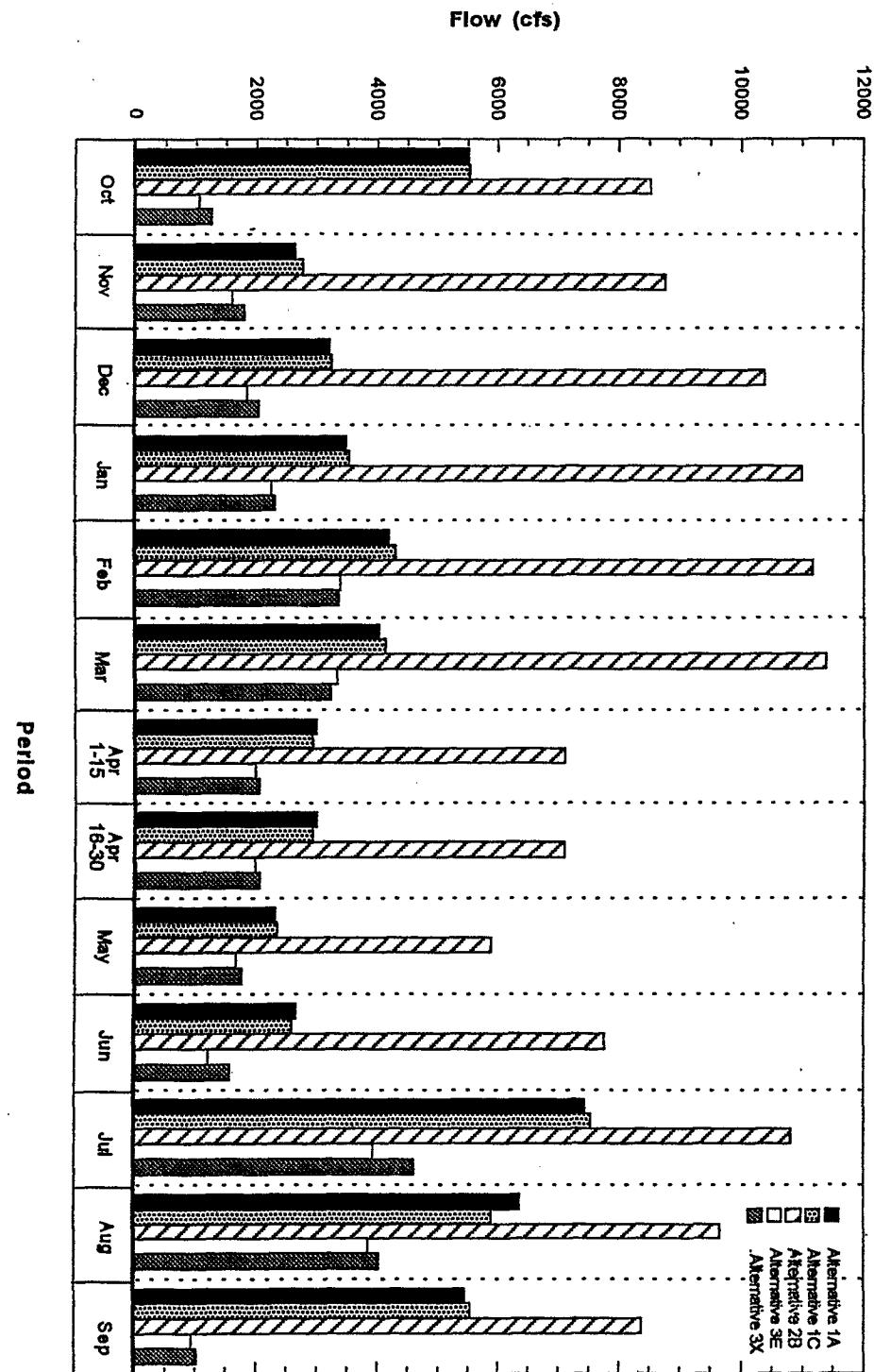
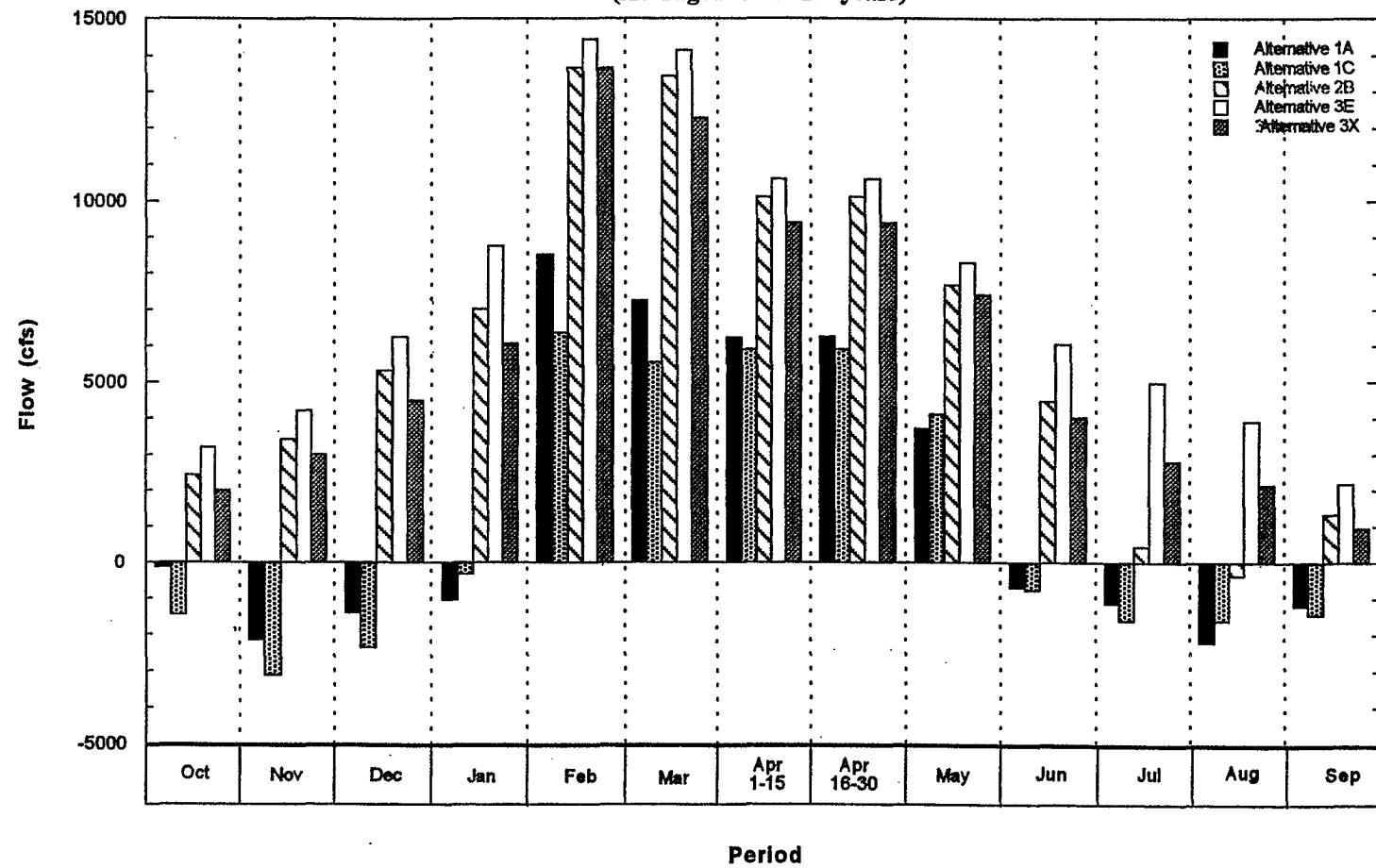


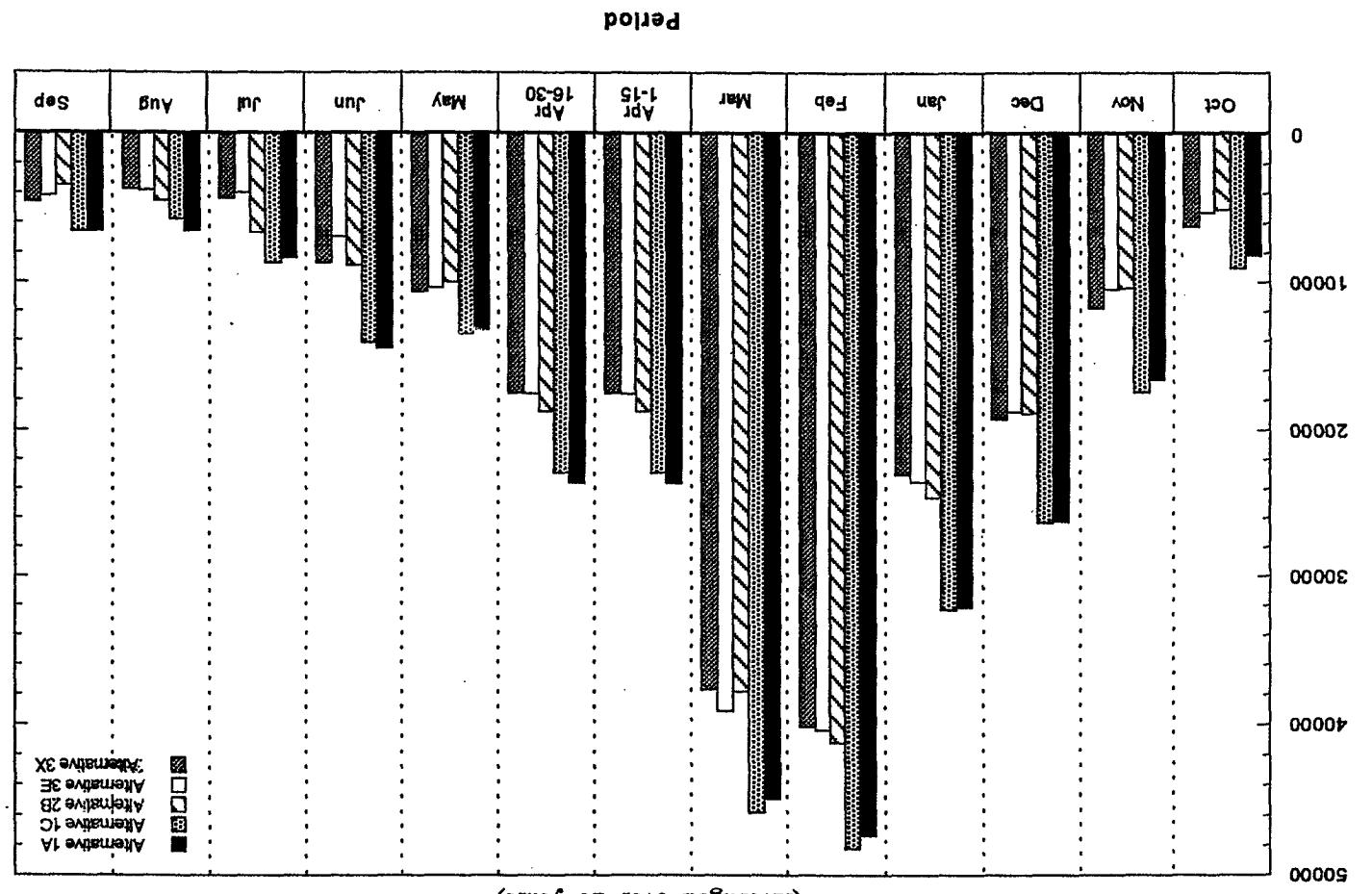
Figure 12: Gross Delta Flow
(Averaged over 16 years)

Figure 13: QWEST
(Averaged over 16 years)



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Figure 14: Rio Vista
(Averaged over 16 years)



Water Levels

Alternatives 1C, 2B, and 3X include south Delta flow control structures in Middle River, Grant Line Canal, and Old River near the existing DMC intake. These structures operate to raise water levels upstream of their locations while also maintaining or improving circulation patterns. All alternatives except 1A also operate a fish control structure at the Head of Old River in the spring and fall. This structure makes a complete closure in Old River to keep migrating fish out of the south Delta. Monthly minimum water levels at 14 locations in the south Delta during the irrigation season of April - September are presented for each alternative in this report. The average of the monthly minimum water levels in Middle River, Old River, and Grant Line Canal are presented in Figures 15 - 18.

Middle River upstream of Victoria Canal. Minimum water levels in Middle River increases approximately 2 feet when the flow control structure operates for any alternative with these structures. The increase in minimum water level here is rather independent of the amount of diversion in the south Delta channels for export. Alternative 3E, with little south Delta diversions and no flow control structures, only slightly increases minimum water levels in Middle River.

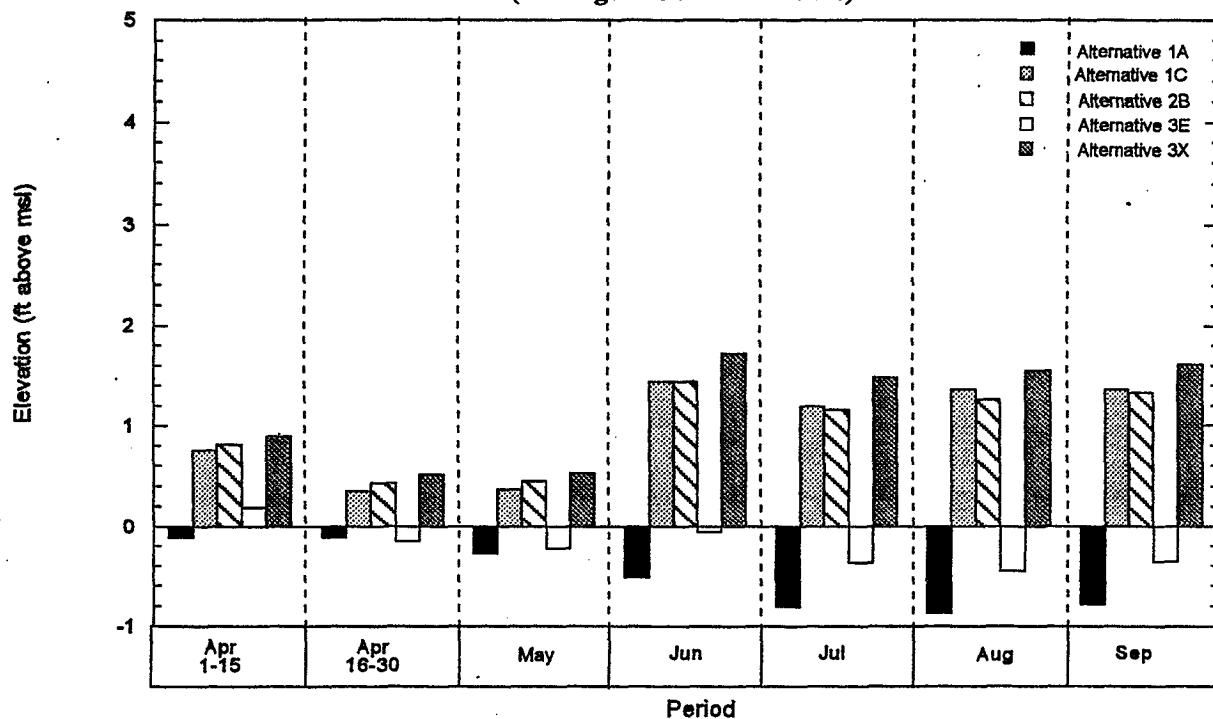
Grant Line Canal and Old River. Minimum water levels in Grant Line Canal and Old River upstream of the existing DMC intake increase for those alternatives which have flow control structures. The increase in minimum water levels are approximately .25 feet to 1 foot in April through May, rising to about 2 feet in June through September when the Grant Line Canal flow control structure begins to operate. The increase in minimum water level in Grant Line Canal and Old River upstream of the existing DMC intake is somewhat insensitive to the diversions for export from south Delta channels. However, these channels need the Grant Line Canal structure to operate before increases in water levels begin to match those in Middle River. Under Alternative 3E, minimum water levels in Grant Line and Old River increase approximately 0.2 to 0.5 feet.

Electrical Conductivity

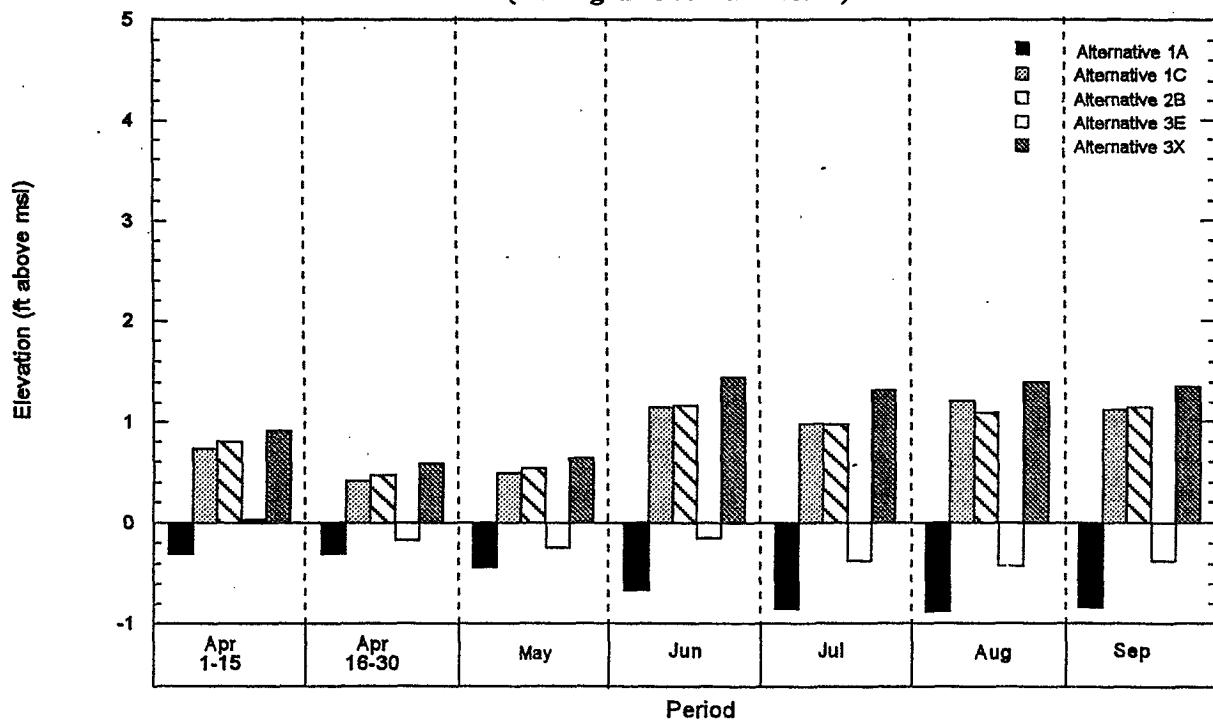
Monthly average electrical conductivity (EC) in microSiemens/cm is presented in this report at 30 locations to indicate the quality of Delta water under the five alternatives. The 16-year average of the monthly average EC under each alternative is shown at Emmaton, Jersey Point, Old River at Middle River, Old River at Tracy, Old River at Rock Slough, and Clifton Court Forebay (Figures 19 through 24).

Emmaton. The salinity at Emmaton is related to the amount of Sacramento River flow at this location, the higher the flow - the lower the EC. As shown in Figure 19, the Emmaton water quality is similar with Alternatives 1A and 1C since the flow at Rio Vista is similar for these two alternatives. The electrical conductivity at Emmaton increases under Alternative 2B in the fall and early winter when compared to Alternatives 1A and 1C, corresponding to decreased Rio Vista flows under 2B. During the same period, EC tends to be lowered under Alternative 3E. Although the 16-year average Rio Vista flow under Alternatives 2B and 3E are similar, close examination of the two alternatives for each year shows that Alternative 3E tends to have higher Rio Vista flows than Alternative 2B during periods of lower Sacramento River flows and higher

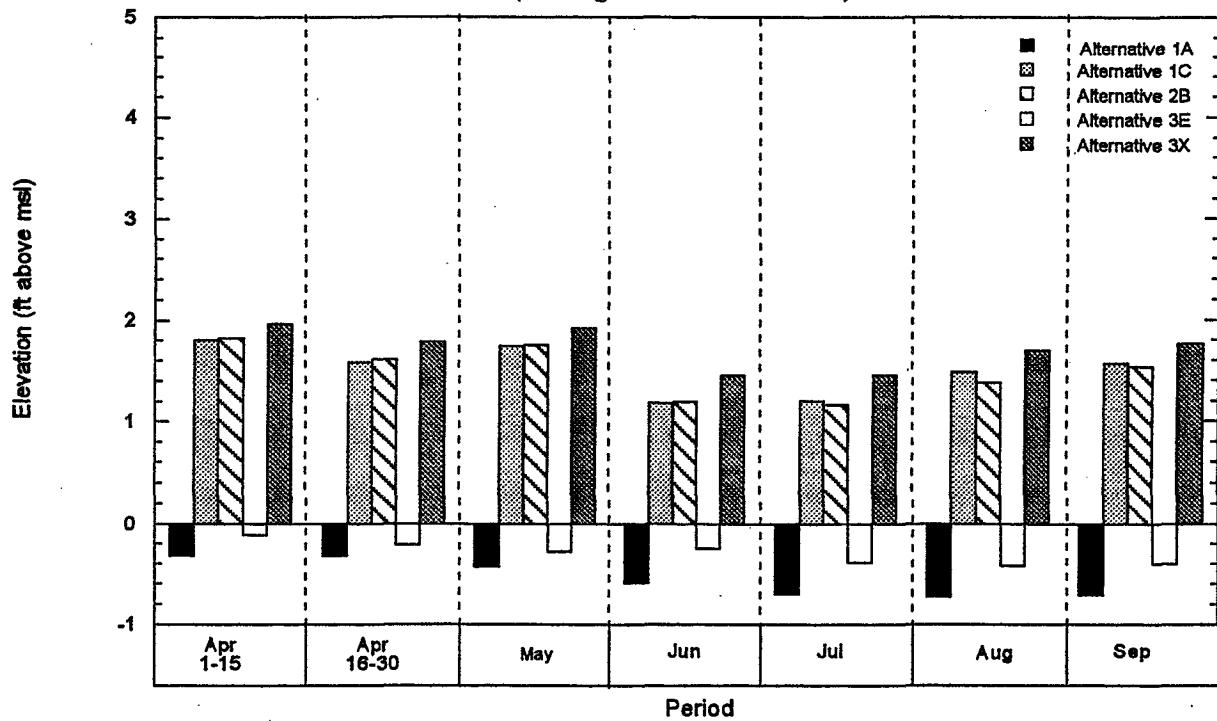
**Figure 15: Minimum Water Levels at Old River near Tracy
(Averaged Over 16 Years)**



**Figure 16: Minimum Water Levels at Old River, Upstream of DMC
(Averaged Over 16 Years)**



**Figure 17: Minimum Water Levels at Middle River, Upstream of Victoria Canal
(Averaged Over 16 Years)**



**Figure 18: Minimum Water Levels at Grant Line Canal near Tracy Road
(Averaged Over 16 Years)**

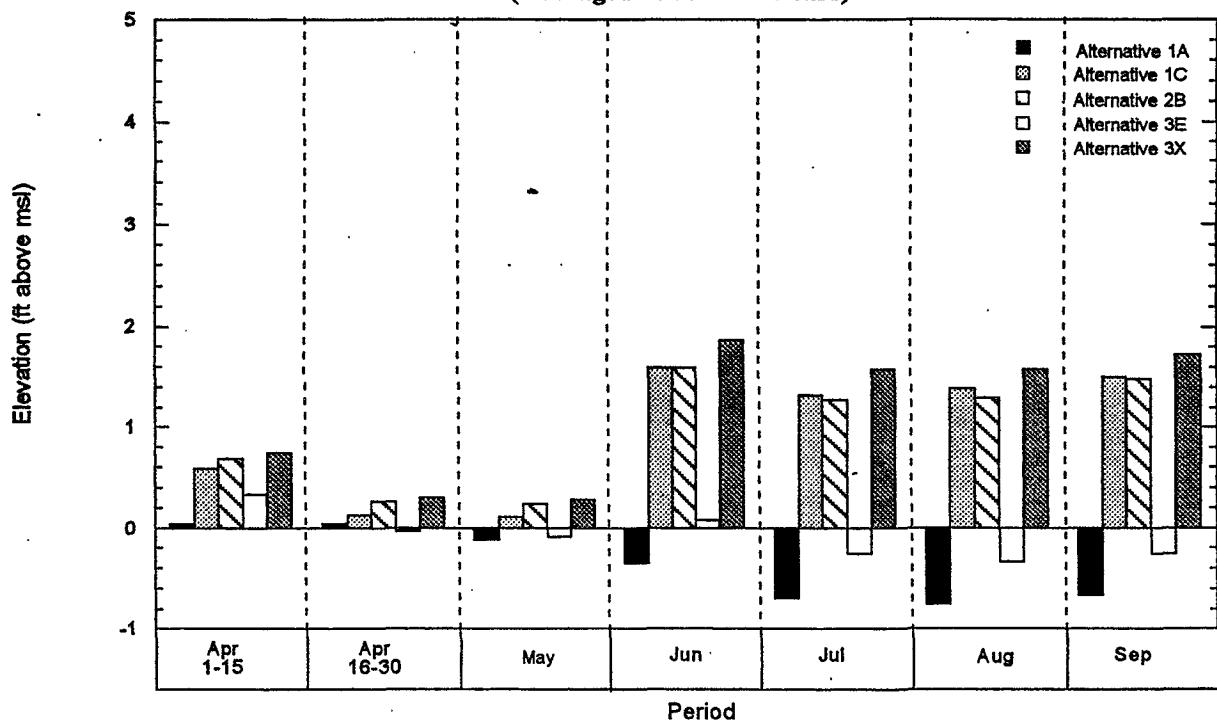


Figure 19: Mean Month Salinity at Emmaton
(Averaged over 16 Years)

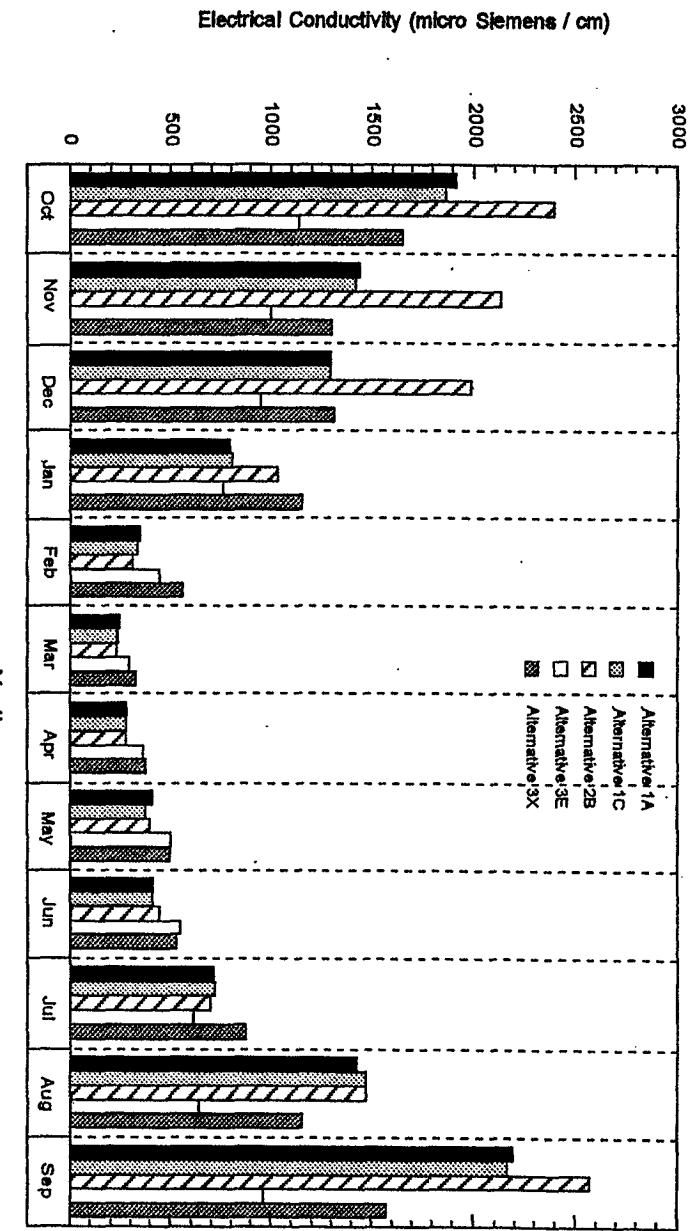


Figure 20: Mean Month Salinity at Jersey Point
(Averaged over 16 Years)

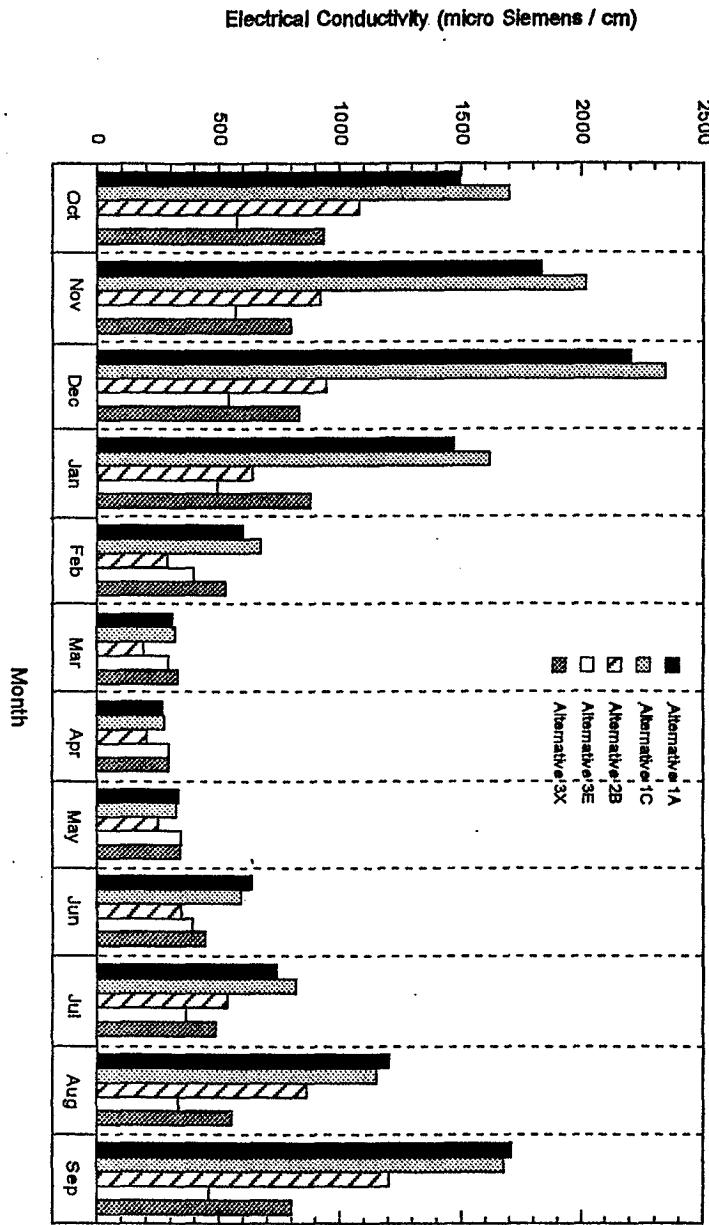


Figure 21: Mean Month Salinity at Old River @ Middle River
(Averaged over 16 Years)

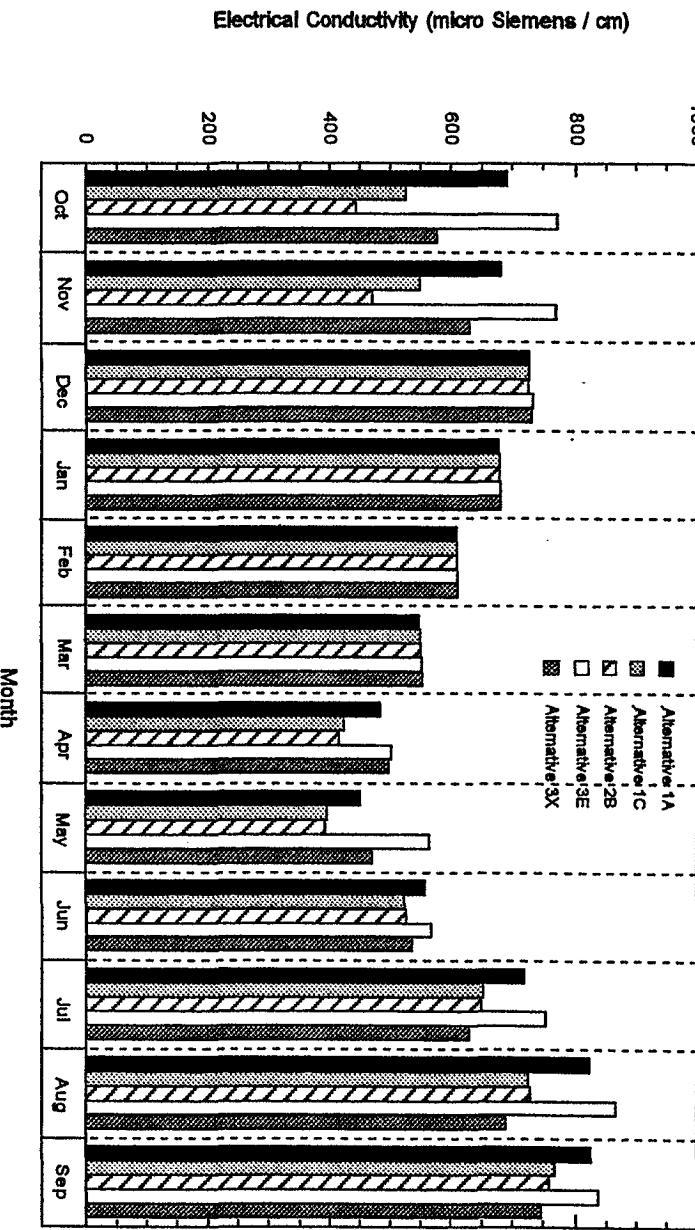


Figure 22: Mean Month Salinity at Old River @ Tracy
(Averaged over 16 Years)

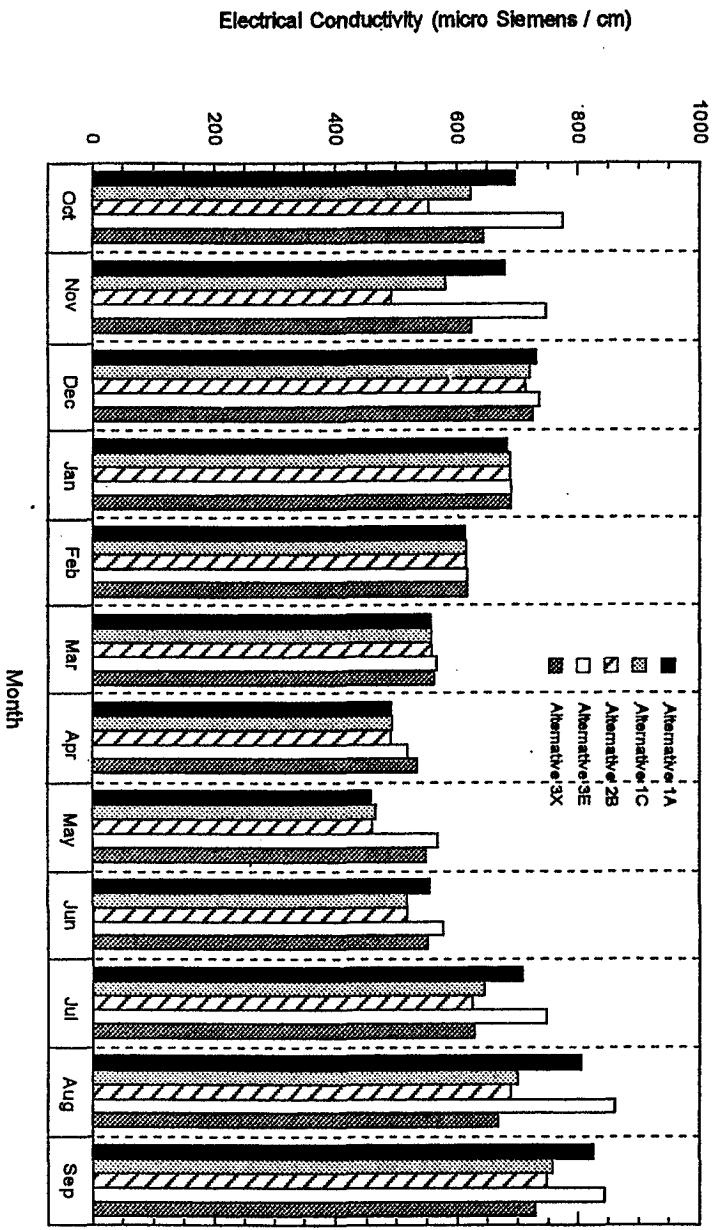


Figure 23: Mean Month Salinity at Old River @ Rock Slough
(Averaged over 16 Years)

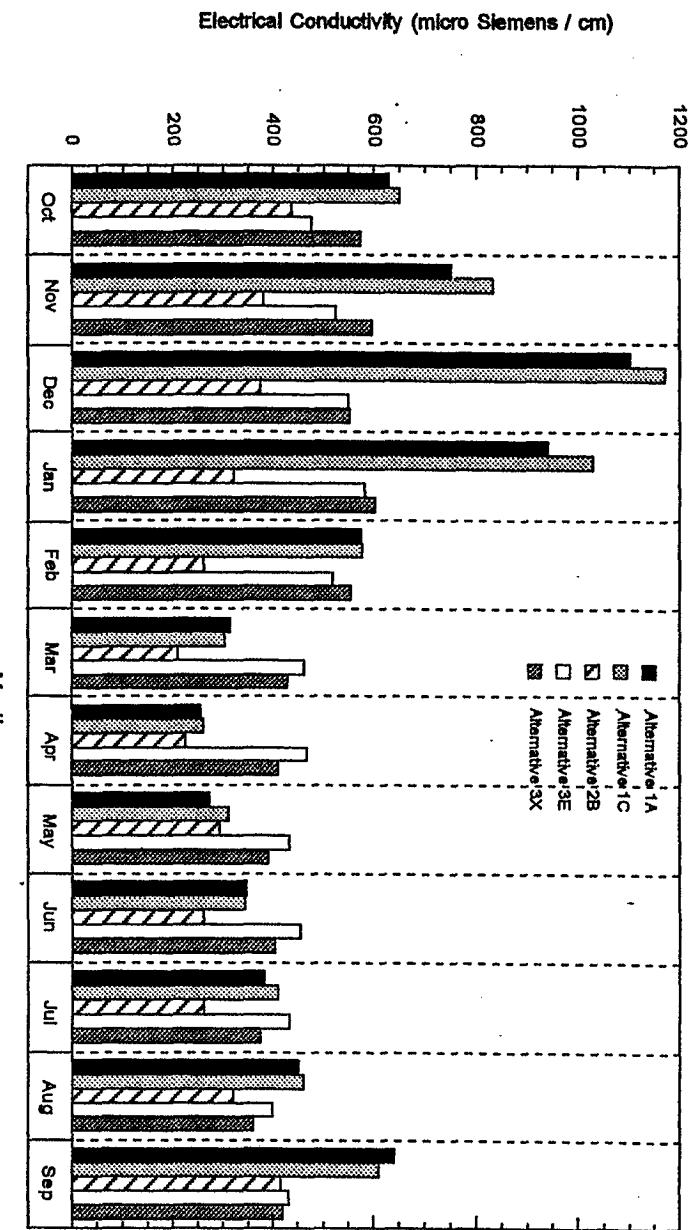
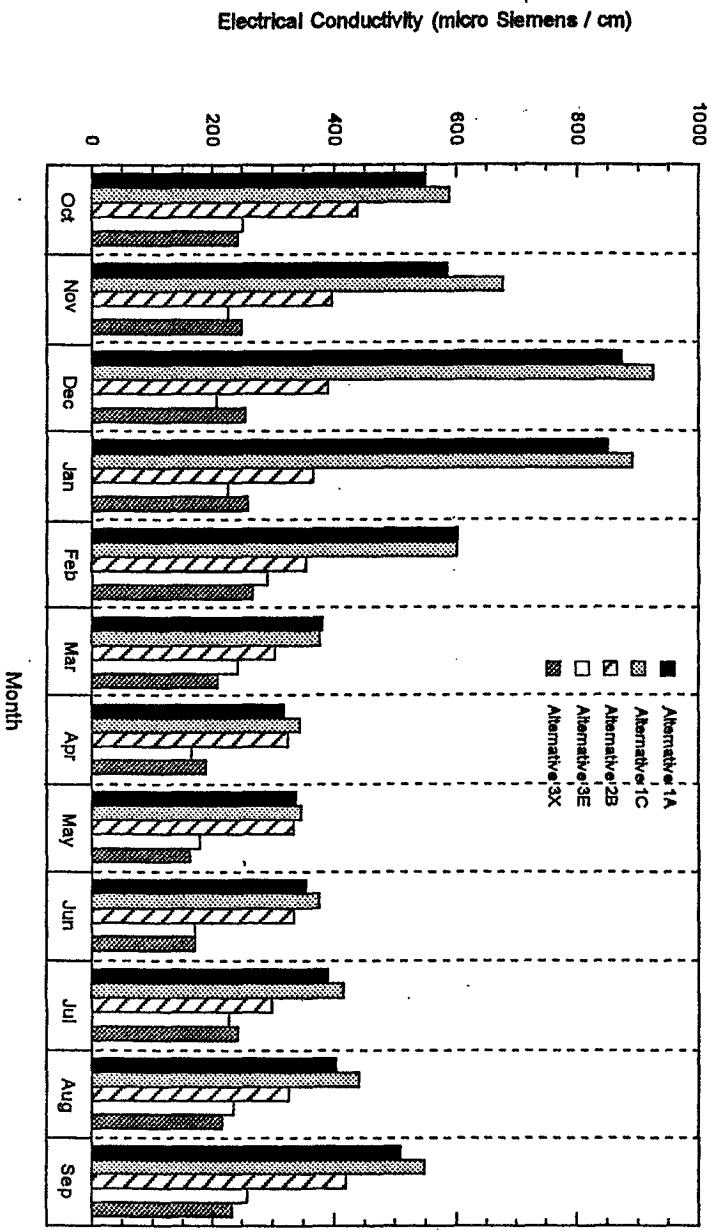


Figure 24: Mean Month Salinity at Clifton Court Forebay
(Averaged over 16 Years)



EC values and lower flows than Alternative 2B under higher Sacramento River flows and lower EC values. Alternative 3X, with some isolated facility flow and south Delta diversions, tend to yield EC values which fall somewhere between those for Alternatives 1C (all south Delta diversions) and Alternative 3E (little or no south Delta diversions). This trend is true for many locations in the Delta, except when Delta inflows and exports differ widely between Alternatives 3E and 3X.

Jersey Point. At Jersey Point (Figure 20), Alternatives 2B, 3E, and 3X significantly reduce EC when compared to Alternatives 1A and 1C, corresponding to increased QWEST flows. Again, the EC values for Alternative 3X fall between those under Alternatives 1C and 3E.

South Delta. Compared to the EC under Alternative 1A, EC in Old River (Figures 21 and 22) tends to decrease in the spring through fall period under the Alternatives which have flow control structures operating (1C, 2B, and 3X). This is due to improved circulation patterns created by the structures. Under Alternative 3E, EC tends to increase slightly over the EC under Alternative 1A.

Old River at Rock Slough. Under Alternatives 2B, 3E, and 3X, the EC can significantly decrease in the fall in Old River at Rock Slough compared to the EC under Alternatives 1A and 1C (Figure 23). The changes are due in part to the changes in QWEST and Delta outflow under the alternatives. Alternative 2B decreases the EC here the most since it increases cross Delta flow the most and brings lower EC water from Sacramento down Old River towards the south Delta diversions into Clifton Court Forebay.

Clifton Court Forebay. Under Alternatives 2B, 3E, and 3X, the EC in Clifton Court forebay is significantly lower than under Alternatives 1A and 1C (Figure 24). Alternatives 2B, 3E, and 3X, to varying degrees, provide more Sacramento River water with less mixing with Delta channel water to the forebay. Nearly all the forebay water needs come directly from the Sacramento River near Hood in April and June under Alternatives 3E and 3X.

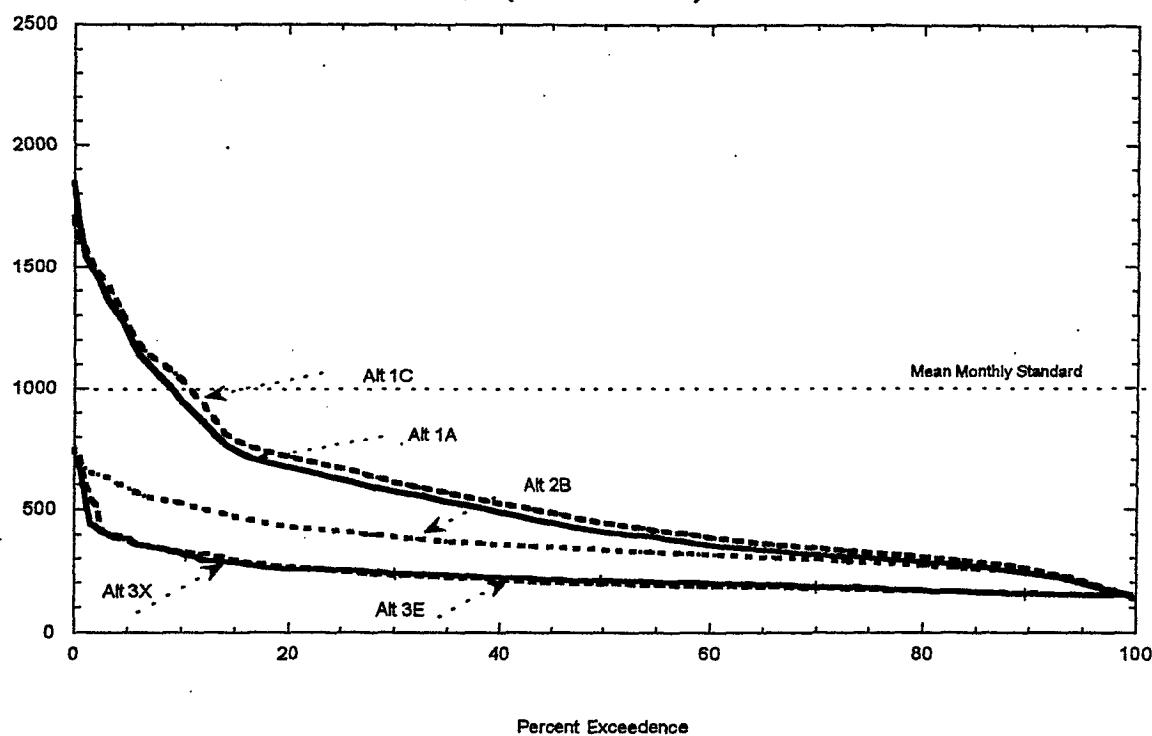
Exceedence Frequency of Electrical Conductivity

Clifton Court Forebay. The exceedence frequency of mean monthly EC values at Clifton Court Forebay during October - September of the 16-year period (1976-1991), is shown in Figure 25. Mean monthly SWRCB standards are also shown for reference. Under Alternatives 1A and 1C, EC values in Clifton Court forebay exceed 1000 micro Siemens/cm about 10% of time and have similar overall exceedence frequency trends. Under Alternatives 3X and 3E, Clifton Court Forebay EC values never exceed 1000 micro-Siemens and have similar exceedence frequency trends. Under Alternative 2B, the trend of exceedence frequency of EC falls between the two groups, with the EC never exceeding 800 micro Siemens/cm.

Contra Costa Canal Intake. The exceedence frequency of mean monthly EC values at Contra Costa Canal Intake during October - September of the 16-year period (1976-1991), is shown in Figure 26. Mean monthly SWRCB standards are also shown for reference. Under Alternatives 1A and 1C, EC values at Contra Costa Canal exceed 1100 micro-Siemens/cm about 10% of the time. Under Alternative 2B, EC rarely exceeds 600 micro-Siemens/cm as EC is generally the lowest at Contra Costa Canal Intake under this alternative, never exceeding 1000 micro-Siemens/cm. The exceedence frequency trend for Alternatives 3X and 3E are similar here,

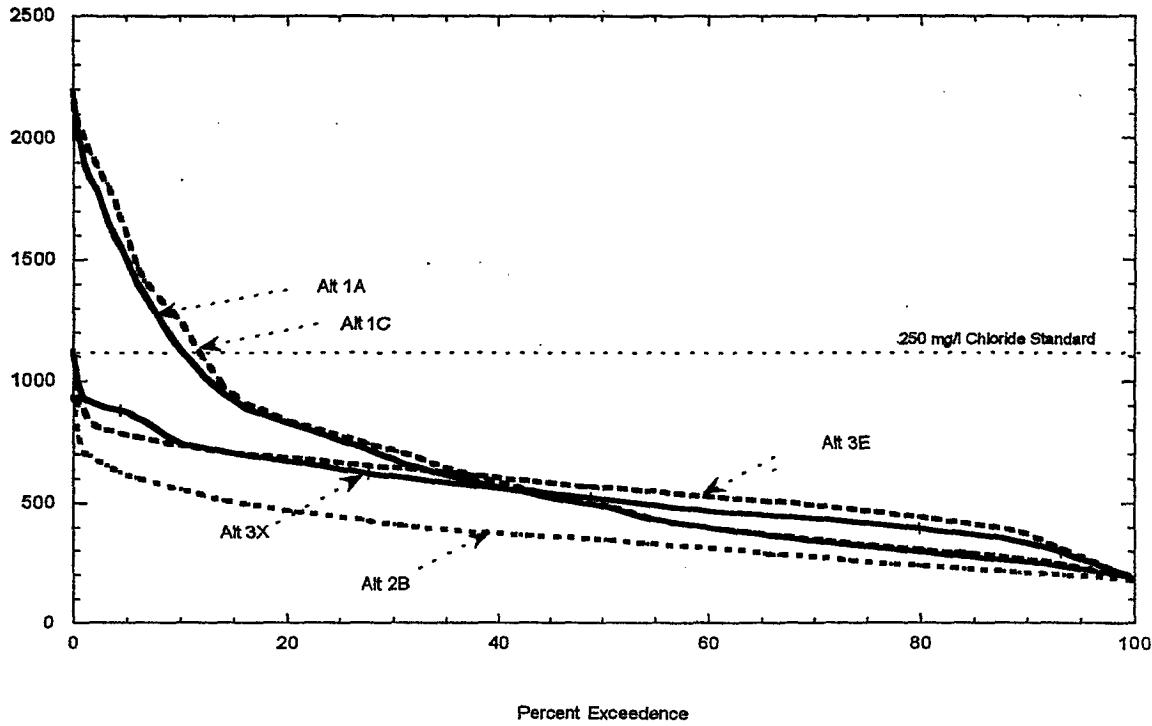
**Figure 25: Mean Daily EC at Clifton Court Forebay
Time Period (Oct - Sep)
(1976 - 1991)**

Electrical Conductivity (micro Siemens/m)

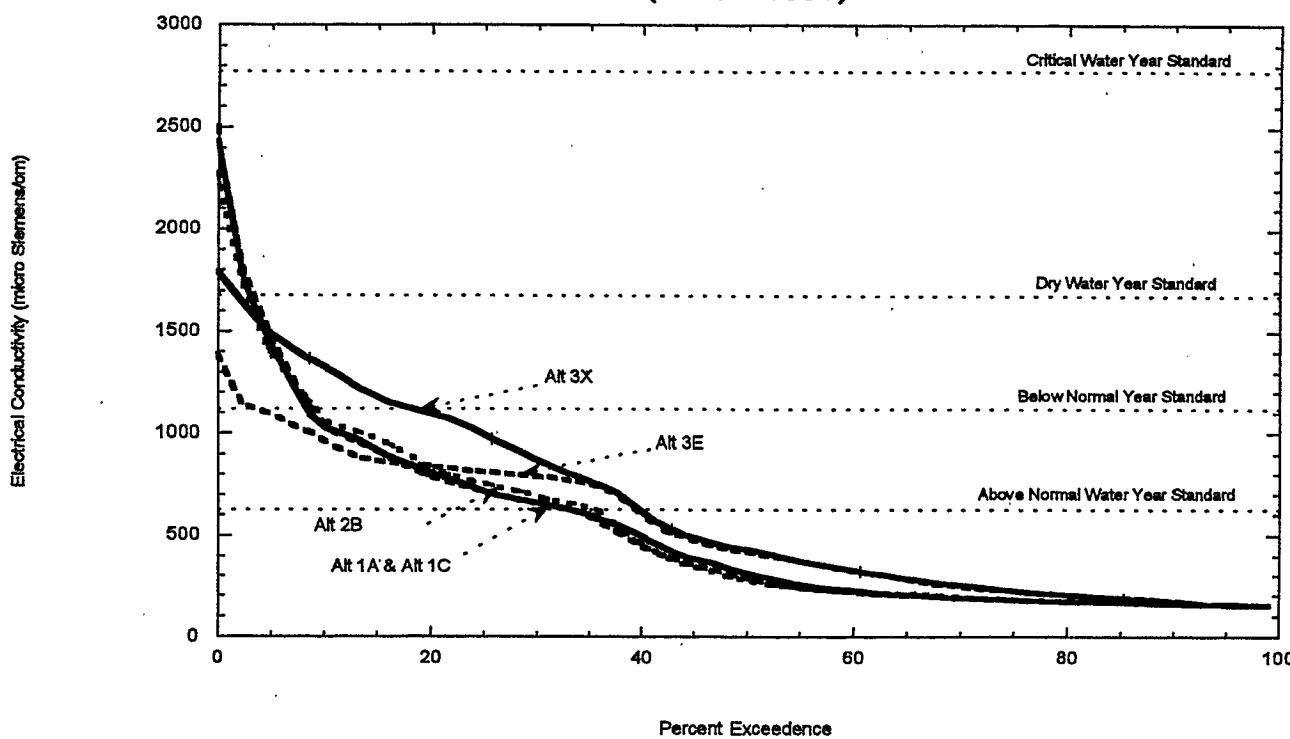


**Figure 26: Mean Daily EC at Contra Costa Canal
Time Period (Oct - Sep)
(1976 - 1991)**

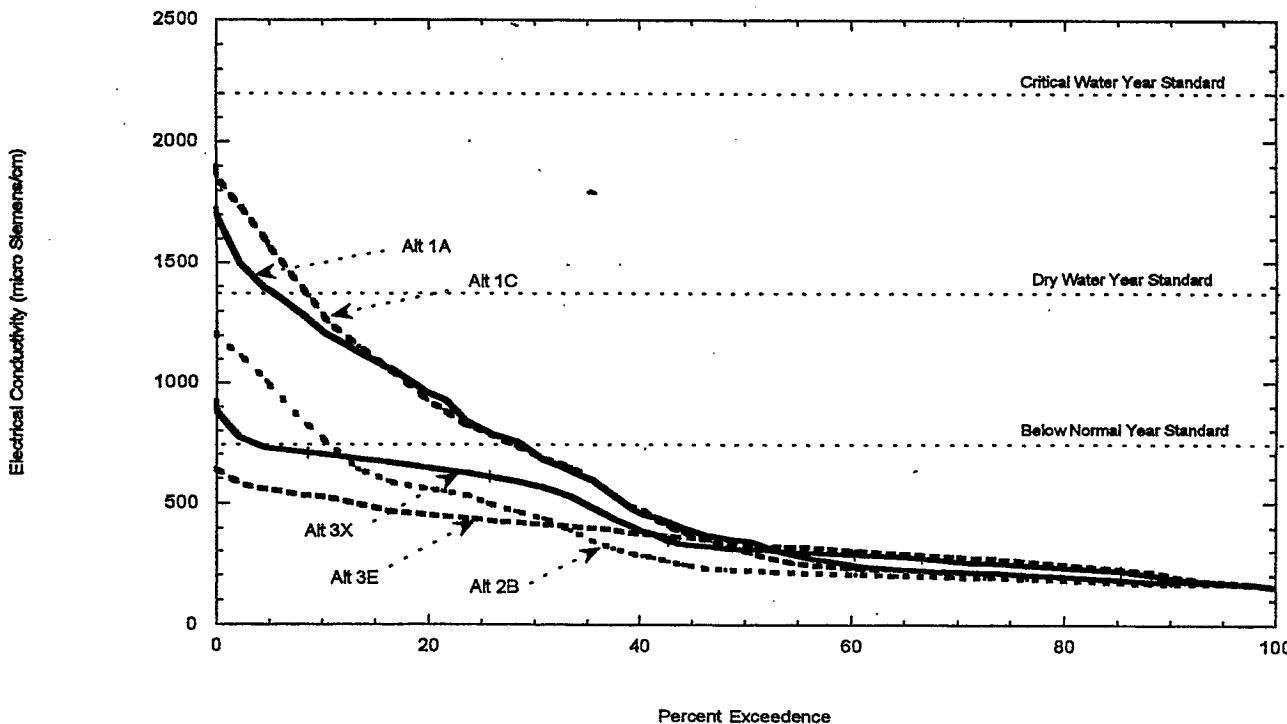
Electrical Conductivity (micro Siemens/m)



**Figure 27: 14-Day Running Average of Mean Daily EC at Emmatton
Time Period (April 1 - August 15)
(1976 - 1991)**



**Figure 28: 14-Day Running Average of Mean Daily EC at Jersey Point
Time Period (April 1 - August 15)
(1976 - 1991)**



falling between the group of Alternatives 1A and 1C and Alternative 3E.

Emmaton. The exceedence frequency of the 14-day running average of mean daily EC at Emmaton for the time period of April 1-August 15 is shown in Figure 27. The SWRCB standards during different water year types are also shown for reference. Alternatives 1A, 1C and 2B have similar trends at Emmaton. The frequency of exceeding an EC between 600 and 1500 micro Siemens/cm under Alternative 3X is greater than under Alternatives 1A, 1C, or 2B. However, under Alternative 3X EC values greater than 1800 micro Siemens/cm are never exceeded while they are under Alternatives 1A, 1C, and 2B. Under Alternative 3E, EC values exceed 850 micro Siemens/cm least frequently of any of the Alternatives.

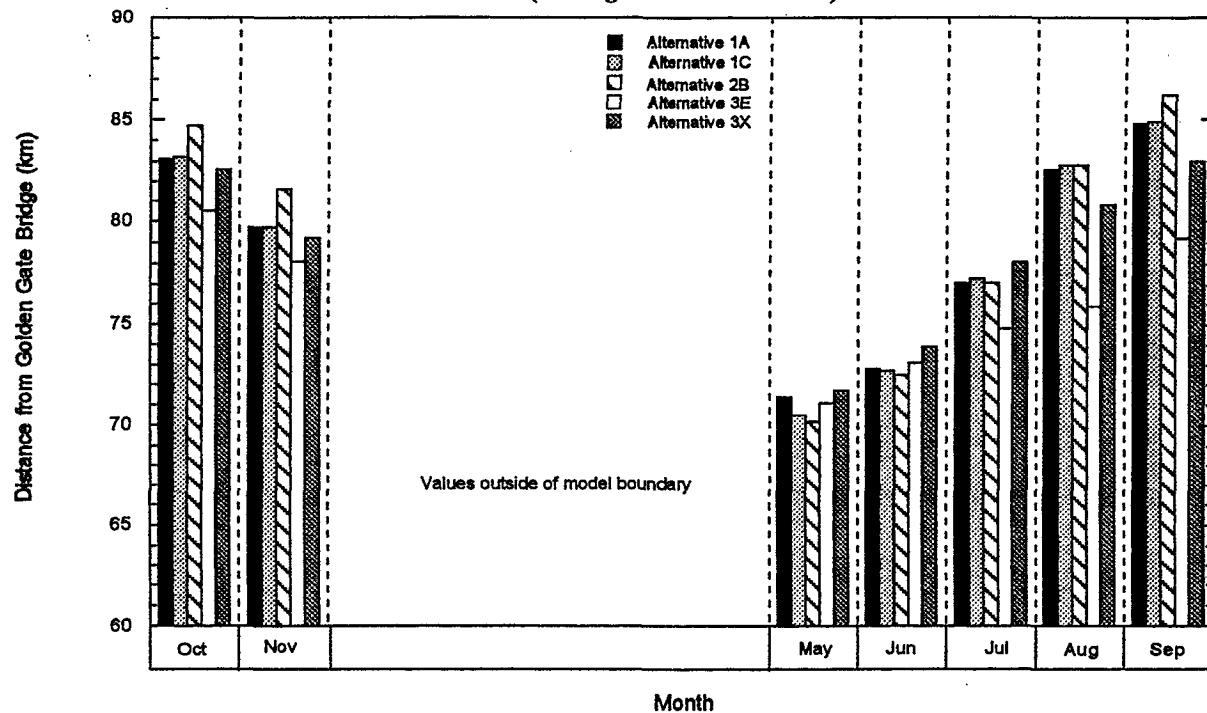
Jersey Point. The exceedence frequency of the 14-day running average of mean daily EC at Jersey Point for the time period of April 1-August 15 is shown in Figure 28. The SWRCB standards during different water year types are also shown for reference. In general, the trend of exceedence frequency is similar between Alternatives 1A and 1C although EC under Alternative 1C exceeds 1200 micro Siemens/cm more often than under Alternative 1A by approximately 5%. Alternative 1C induces more reverse flow in QWEST which increases EC at Jersey Point. Under Alternative 3E, EC at Jersey Point never exceeds 650 micro Siemens/cm and exceeds 450 micro Siemens/cm about 35% of the time. EC at Jersey Point under Alternatives 2B and 3X never exceed 950 and 1250 micro Siemens/cm respectively.

X2 Location

The mean monthly location of 2640 micro Siemens./cm EC (an equivalent of 2000 ppm at Chippis Island), is assumed to represent X2 location in this analysis. The values averaged over 16 years (1976-1991) under the five alternatives are shown in Figure 29 as distance in kilometers (km) from Golden Gate. X2 typically varies during the year corresponding to seasonal Delta outflow cycles. is generally smaller (closer to Golden Gate) during the wet portion of the year (about 62 km). When Delta outflow is relatively high in the winter and spring, there is little difference in X2 between the alternatives. However, in the late summer and fall when X2 is higher, differences between the alternatives become more larger. X2 may vary between alternatives at this time for two reasons: differences in Delta outflow and differences in QWEST when X2 begins to near Collinsville. Alternative 3E tends to cause the lowest X2 values while Alternative 2B at times causes the highest values.

The tidal day minimum and maximum location of X2 versus tidal day average X2 is plotted over the 16 year period and shown in Figure 30. The upper limb represents tidal day maximum and the lower limb shows tidal day minimum locations of X2. The range is defined as the difference between maximum and minimum location of X2. The range varies with distance from the Golden Gate, corresponding to varying channel geometry. For example, at 70 km from Golden Gate, X2 could range about 16 km during a tidal day. Further upstream in the estuary at 85 km from Golden Gate, this range may be less; only about 6 km during a tidal day.. Each alternative shows a very similar relationship between daily average X2 and daily maximum and minimum X2. This shows that if the alternatives indicate the same average X2 value for any given day, the maximum and minimum X2 values are also the same for each alternative.

**Figure 29: Mean Monthly Location of 2640 micro Siemens/cm EC
(Averaged over 16 Years)**



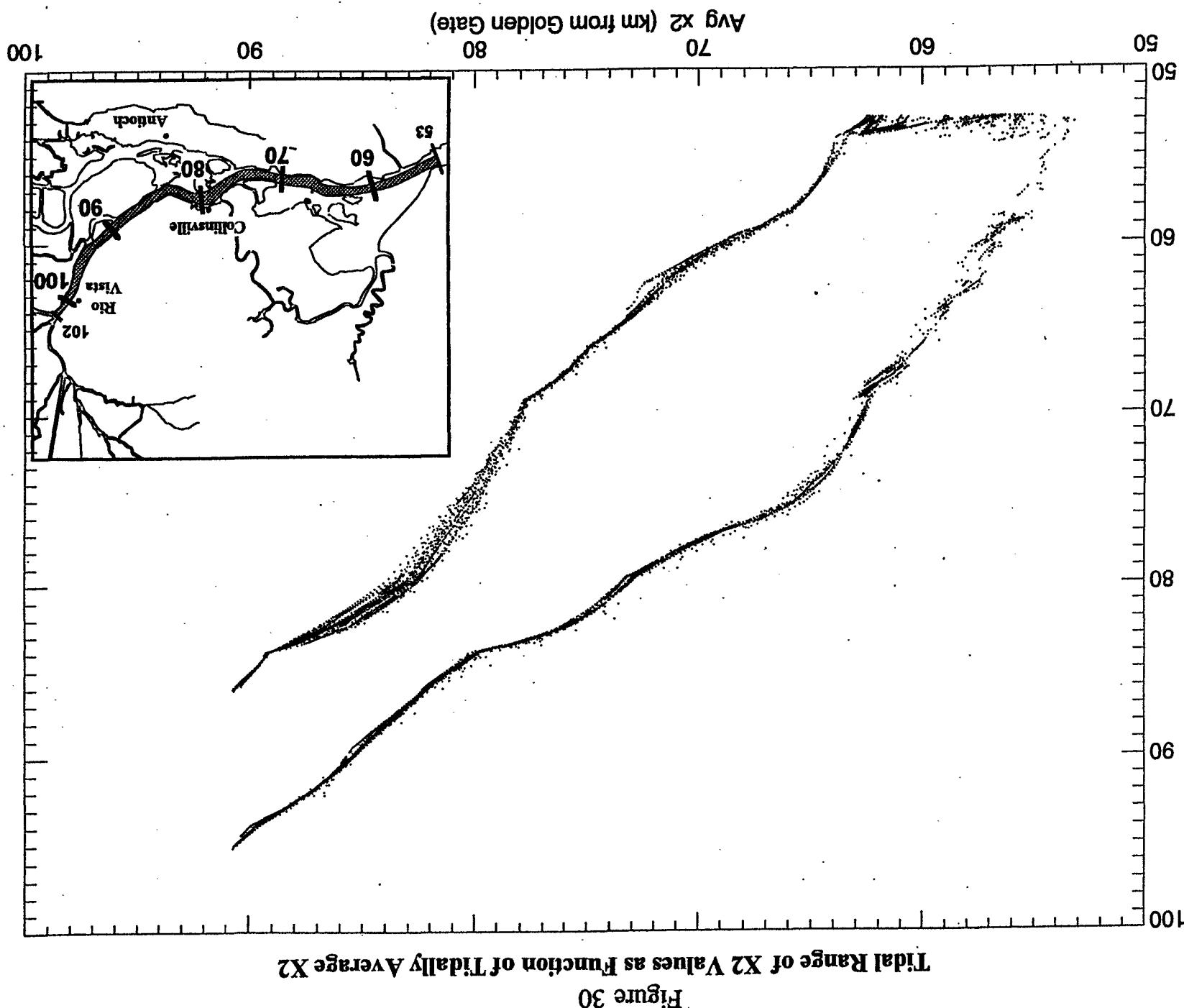
Min and Max x_2 (km from Golden Gate)

Figure 30

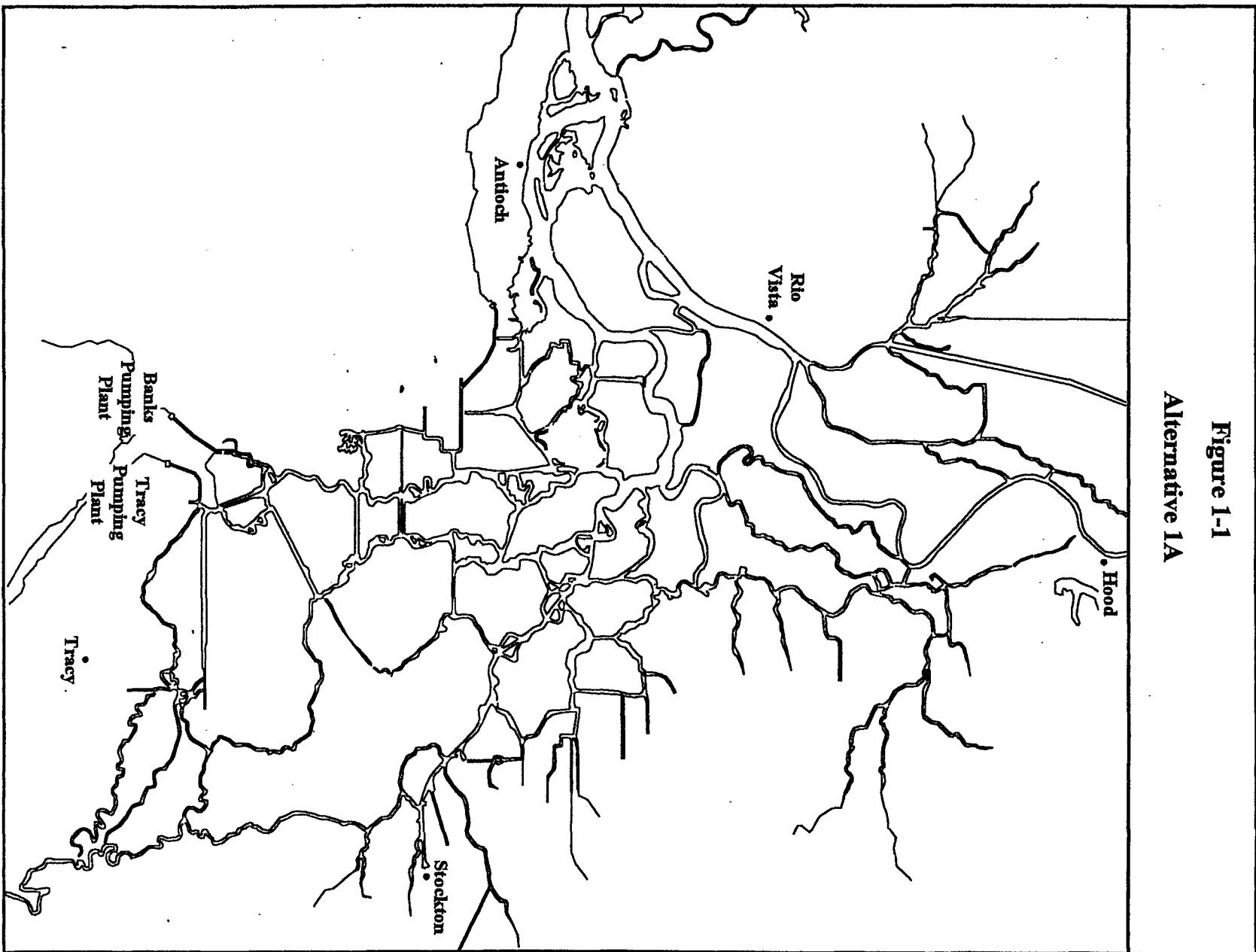
Appendix 1

Alternative 1A

Delta Modeling Assumptions & Results

Figure 1-1

Alternative 1A



1-1

D - 0 0 9 6 5 6

D-009656

Table 1-1
Delta Hydrology for Alternative 1A (DWRSIM Study 516)
Water Years 1976 - 1991

(values in cfs)

Sacramento River Inflow at I Street

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	21,442	16,421	16,301	16,863	20,512	18,303	9,768	10,567	16,317	15,278	11,479	11,164
1977	9,728	8,367	8,538	9,045	13,074	7,430	9,166	7,328	10,991	8,328	5,753	7,786
1978	7,751	5,534	12,943	44,066	50,586	43,378	34,264	18,515	15,930	16,885	16,807	13,890
1979	14,277	13,655	13,873	24,098	36,059	33,114	18,399	12,308	21,052	20,171	16,217	10,647
1980	13,643	16,799	21,564	55,038	71,452	37,033	20,253	14,952	15,014	17,336	15,250	13,411
1981	12,063	13,075	16,197	23,854	28,100	29,693	17,463	11,665	14,590	19,750	16,628	12,192
1982	11,259	32,386	61,855	51,219	68,034	69,403	75,089	37,146	22,150	18,950	13,692	21,114
1983	26,778	39,575	56,915	60,141	83,437	82,260	69,237	54,357	55,161	22,809	19,462	26,946
1984	25,005	63,813	83,098	47,513	36,965	35,154	16,931	12,550	19,173	21,459	17,068	12,035
1985	16,604	33,891	23,895	17,137	19,367	17,917	12,613	15,329	14,272	19,629	16,488	11,768
1986	11,355	10,462	15,551	23,181	88,862	72,609	20,808	13,271	12,692	17,561	16,983	13,521
1987	13,122	11,807	13,606	17,147	23,439	27,018	12,713	9,284	17,738	19,444	16,610	8,042
1988	9,241	6,457	16,771	25,900	13,701	11,200	9,538	9,521	13,903	13,038	6,187	7,986
1989	8,320	9,071	9,127	12,109	12,980	42,012	24,067	13,766	14,190	20,055	14,284	12,264
1990	12,616	10,991	12,489	21,416	16,479	14,135	11,849	7,137	16,362	10,482	6,475	8,204
1991	9,633	6,987	6,198	6,883	11,326	30,818	15,517	8,830	11,263	9,640	8,511	8,108

San Joaquin River at Vernalis

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3,824	1,799	2,028	1,654	2,120	2,182	2,210	1,704	829	640	817	1,270
1977	2,819	2,186	1,634	1,299	1,361	1,551	1,814	1,796	710	913	863	1,152
1978	1,324	1,442	1,492	3,495	7,394	11,491	16,166	12,828	8,291	3,061	1,833	2,796
1979	4,280	2,285	2,111	4,363	7,831	8,119	6,307	6,607	3,286	1,697	1,650	2,041
1980	2,886	1,734	2,290	11,874	19,182	14,046	7,107	7,899	8,129	3,868	1,862	2,630
1981	4,677	2,047	1,832	2,352	2,675	2,621	2,861	2,183	1,420	847	915	1,502
1982	2,000	1,661	2,192	6,800	14,474	14,272	27,774	18,316	10,642	3,514	3,007	5,952
1983	8,611	8,626	18,007	23,027	35,787	41,080	21,187	21,985	37,636	15,107	3,441	7,542
1984	7,722	13,518	20,824	13,480	8,729	6,346	4,300	4,062	2,525	1,804	1,870	2,250
1985	2,000	1,915	2,070	1,872	2,727	2,420	2,901	2,369	1,420	865	889	1,515
1986	2,000	1,532	1,636	2,197	24,068	25,380	11,035	9,396	9,285	1,721	1,816	2,016
1987	3,589	1,687	1,797	1,697	2,032	2,356	2,438	1,845	827	795	886	1,444
1988	1,843	1,382	1,239	1,218	1,342	1,403	2,165	1,804	724	461	753	1,096
1989	1,203	1,279	1,290	1,224	1,340	1,683	2,644	2,622	710	923	833	1,356
1990	1,293	1,263	1,172	1,223	1,410	1,469	2,638	2,363	710	573	692	1,310
1991	1,260	1,246	1,154	1,140	1,169	2,441	3,198	2,581	715	600	658	1,204

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Table 1-1 (cont)
Delta Hydrology for Alternative 1A (DWRSIM Study 516)
Water Years 1976 - 1991

(values in cfs)

Yolo Bypass Inflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	146	0	49	16	18	163	118	81	67	49	407	168
1977	49	34	49	65	54	146	168	537	67	146	81	34
1978	49	202	764	14,182	6,842	16,800	1,042	49	67	244	81	50
1979	65	118	33	797	648	228	50	65	67	114	49	50
1980	65	101	1,057	31,177	43,629	15,044	50	211	286	211	211	50
1981	65	34	146	488	594	195	50	65	101	98	81	50
1982	65	2,260	23,224	20,736	22,111	5,139	36,569	293	67	65	49	17
1983	130	1,613	10,571	20,866	58,628	113,532	15,444	3,058	840	49	49	50
1984	33	5,428	46,562	14,979	882	553	118	81	67	49	49	50
1985	1,382	1,109	49	146	216	65	50	65	67	49	49	50
1986	49	303	683	49	88,770	55,117	1,025	65	67	49	49	50
1987	65	34	98	146	288	423	84	81	67	49	49	50
1988	33	118	488	1,236	108	65	84	65	50	49	49	50
1989	65	84	228	81	90	537	101	81	67	49	49	17
1990	16	50	33	325	756	33	168	49	67	49	49	50
1991	65	0	65	33	126	748	50	65	67	49	49	50

Contra Costa Canal Diversion

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	220	187	148	120	103	197	0	145	249	164	168	279
1977	241	66	49	115	162	197	180	241	249	324	273	279
1978	241	193	177	143	162	99	111	220	281	511	538	464
1979	413	183	172	120	103	200	0	220	474	329	356	264
1980	236	183	149	120	63	99	0	220	418	327	355	264
1981	236	188	146	120	103	99	0	220	430	332	356	264
1982	236	185	145	120	103	34	0	220	479	327	355	264
1983	233	185	145	120	103	99	0	220	410	329	356	279
1984	223	143	181	122	104	99	0	220	435	329	356	281
1985	224	183	145	120	103	99	0	220	434	330	356	264
1986	237	150	145	120	56	150	0	220	420	327	355	264
1987	234	183	145	120	103	99	0	220	437	329	338	264
1988	96	71	99	120	103	99	0	220	281	153	231	103
1989	213	183	145	120	103	99	111	220	481	511	538	264
1990	213	183	145	120	103	197	0	241	249	250	233	166
1991	184	193	177	143	162	197	180	241	249	324	273	279

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Table 1-1 (cont.)
Delta Hydrology for Alternative 1A (DWRSIM Study 516)
Water Years 1976 - 1991

(values in cfs)

Banks Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	6,652	6,672	7,022	7,236	6,186	3,704	1,415	1,508	3,631	6,684	6,554	3,940
1977	3,667	3,478	3,594	2,561	1,216	835	596	514	490	435	94	1,788
1978	781	1,733	6,084	7,849	3,807	4,334	3,532	3,522	4,309	6,684	6,480	6,457
1979	6,652	6,323	6,320	8,139	6,248	7,592	2,532	2,174	4,980	6,684	6,554	3,445
1980	6,521	6,672	7,066	8,338	4,205	4,083	2,747	2,612	4,350	6,684	6,208	6,588
1981	6,652	5,539	6,990	5,769	6,489	6,399	2,116	1,652	2,878	6,684	6,554	4,658
1982	3,949	6,672	7,050	8,500	8,500	7,592	5,466	4,091	6,672	6,684	5,456	6,588
1983	6,652	6,672	7,592	3,967	4,151	4,096	4,606	4,399	5,191	5,835	6,554	6,529
1984	4,943	4,452	4,066	4,795	5,859	6,172	2,248	1,981	3,974	6,684	6,554	5,228
1985	6,652	6,672	7,029	7,308	6,317	3,781	1,737	2,004	2,814	6,684	6,554	4,428
1986	4,942	4,795	6,957	7,417	8,500	7,531	4,198	2,649	4,175	6,684	6,554	6,204
1987	6,652	3,947	6,133	7,250	7,080	5,556	1,672	1,402	3,317	6,684	6,554	2,276
1988	1,955	922	6,891	7,090	2,362	1,817	1,391	382	469	467	89	1,270
1989	511	3,625	3,771	4,671	1,824	6,965	2,631	1,893	2,705	6,684	6,554	4,716
1990	4,476	2,749	3,942	7,092	6,139	3,468	1,631	1,250	1,563	990	365	1,528
1991	1,899	2,041	1,418	1,566	110	7,091	1,956	1,385	514	795	73	1,117

Tracy Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	4,372	4,281	4,207	4,207	4,233	3,704	1,415	1,508	2,512	1,154	1,246	4,181
1977	2,069	2,776	2,292	3,263	703	1,238	1,649	565	287	663	943	2,799
1978	1,514	1,270	4,207	4,207	4,261	2,337	3,429	3,522	4,309	1,011	4,599	4,564
1979	4,414	4,300	4,207	4,207	4,240	4,225	2,532	2,174	3,680	4,599	4,599	4,420
1980	4,328	4,261	4,207	4,207	4,249	1,950	2,733	2,612	4,350	3,541	4,599	4,476
1981	4,361	4,276	4,207	3,750	1,713	2,946	2,116	1,652	2,878	4,599	4,599	4,451
1982	4,346	4,269	4,207	4,207	4,269	4,225	2,733	3,506	4,600	4,599	4,599	4,502
1983	4,377	4,283	4,207	2,387	1,222	1,831	2,891	3,453	4,600	4,599	4,599	4,496
1984	3,187	1,555	2,668	1,183	1,393	3,151	2,248	1,981	3,974	4,599	4,599	4,494
1985	4,373	4,281	4,207	4,207	4,249	3,781	1,737	2,004	2,814	4,599	4,599	4,392
1986	3,175	3,016	4,207	4,207	4,241	3,681	2,216	2,649	3,999	933	4,599	4,409
1987	4,321	4,258	4,207	1,538	1,188	2,227	1,672	1,402	3,317	4,599	4,599	2,437
1988	4,010	2,228	4,207	4,207	1,217	2,011	1,391	2,449	3,538	4,537	1,051	3,233
1989	2,190	2,815	3,190	4,207	750	4,225	2,631	1,893	2,705	4,576	2,041	4,345
1990	4,283	4,241	4,207	4,207	1,528	2,158	1,631	1,250	4,499	1,702	1,035	3,362
1991	2,281	1,670	1,669	1,647	330	4,225	1,956	1,461	2,289	1,074	3,434	3,324

Department of Water Resources, Delta Modeling Section

Table 1-1 (cont.)
Delta Hydrology for Alternative 1A (DWRSIM Study 516)
Water Years 1976 - 1991

(values in cfs)

Delta Channel Depletions

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	732	874	943	49	414	1,382	1,681	3,285	4,151	4,229	1,903	1,328
1977	1,236	807	862	-114	504	1,008	2,185	1,610	4,134	4,294	2,667	1,294
1978	1,269	689	146	-5,009	-1,891	-1,610	420	2,342	4,117	4,229	2,830	1,513
1979	1,382	622	894	-2,179	-2,557	179	1,227	2,374	4,302	4,115	2,618	1,748
1980	862	723	-33	-2,700	-3,601	309	1,210	2,000	3,697	3,773	2,618	1,563
1981	1,334	891	748	-732	198	-293	1,580	2,488	4,453	4,342	2,830	1,513
1982	846	101	-520	-4,407	-612	-2,911	34	2,342	3,512	4,050	2,667	924
1983	781	-1,126	-829	-4,733	-3,547	-4,635	-50	1,968	4,033	4,050	2,732	1,395
1984	1,203	-17	-2,017	-146	-162	748	1,529	2,716	4,033	4,294	2,749	1,815
1985	813	-437	33	-504	36	-374	1,714	2,797	4,285	4,180	2,618	1,344
1986	1,122	387	49	-1,480	-5,906	-1,269	1,193	2,293	4,067	4,163	2,879	1,227
1987	1,301	908	829	-179	-378	-114	2,000	2,862	4,067	3,936	2,765	1,714
1988	1,171	672	276	-1,447	342	1,041	1,496	2,196	3,764	4,700	2,879	1,748
1989	1,334	672	618	-114	90	0	1,933	2,716	3,949	4,521	2,749	840
1990	976	756	927	-455	-270	992	1,899	1,155	4,201	4,456	2,830	1,714
1991	1,236	874	813	49	396	-504	1,529	2,049	3,210	4,391	2,700	1,832

Net Delta Outflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	13,757	6,524	6,352	7,188	12,128	12,078	7,802	6,111	6,897	4,000	3,000	3,000
1977	5,453	3,500	3,500	4,732	11,998	6,019	6,963	6,897	6,897	4,000	3,000	3,000
1978	5,454	3,500	5,192	57,807	60,658	69,191	46,650	22,379	11,478	8,000	4,437	3,811
1979	5,812	4,788	4,500	20,555	39,788	31,732	19,420	12,565	11,192	6,500	4,000	3,000
1980	4,616	6,967	14,085	93,757	131,083	62,358	21,841	17,119	11,926	8,000	4,437	4,028
1981	4,418	4,500	6,449	18,747	23,371	25,079	15,082	8,138	5,696	5,000	3,500	3,000
1982	4,000	27,263	78,238	76,858	101,122	86,969	144,446	49,449	19,239	8,000	4,737	15,893
1983	23,958	43,713	83,603	112,150	189,369	254,841	103,878	76,368	83,550	24,819	10,263	23,415
1984	23,636	83,848	156,889	73,842	42,560	33,804	16,472	10,884	10,168	8,000	5,273	3,000
1985	8,177	27,776	15,317	8,463	12,692	14,220	11,053	11,011	5,608	5,000	3,500	3,000
1986	4,000	4,500	7,148	16,315	213,767	152,092	26,966	16,354	10,575	8,000	5,189	4,088
1987	4,427	4,500	4,500	10,668	18,721	23,180	10,121	5,508	7,716	5,000	3,500	3,000
1988	4,000	4,500	7,972	18,998	11,400	7,889	7,800	6,342	6,896	4,000	3,000	3,000
1989	5,456	3,500	3,500	4,736	11,979	34,532	19,893	10,099	5,506	5,000	3,500	3,648
1990	4,000	4,500	4,500	12,356	11,623	9,197	9,838	5,852	6,883	4,000	3,000	3,000
1991	5,443	3,500	3,500	4,741	11,976	24,620	13,370	6,540	6,039	4,000	3,000	3,000

Department of Water Resources, Delta Modeling Section

Table 1-2
Operation of Delta Facilities
under
Alternative 1A

Delta Cross Channel												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	O	X	X	X	X	X	X	X	X	O	O	O
1977	O	X	X	X	X	X	X	X	X	O	O	O
1978	O	X	X	X	X	X	X	X	X	O	O	O
1979	O	X	X	X	X	X	X	X	X	O	O	O
1980	O	X	X	X	X	X	X	X	X	O	O	O
1981	O	X	X	X	X	X	X	X	X	O	O	O
1982	O	X	X	X	X	X	X	X	X	O	O	O
1983	X	X	X	X	X	X	X	X	X	O	O	X
1984	X	X	X	X	X	X	X	X	X	O	O	O
1985	O	X	X	X	X	X	X	X	X	O	O	O
1986	O	X	X	X	X	X	X	X	X	O	O	O
1987	O	X	X	X	X	X	X	X	X	O	O	O
1988	O	X	X	X	X	X	X	X	X	O	O	O
1989	O	X	X	X	X	X	X	X	X	O	O	O
1990	O	X	X	X	X	X	X	X	X	O	O	O
1991	O	X	X	X	X	X	X	X	X	O	O	O

Note: 'X' denotes gates closed, 'O' denotes gates open.

Suisun Marsh Salinity Control Gates

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	O	O	O	O	O	O	O	O	N	N	N	N
1977	O	O	O	O	O	O	O	O	N	N	N	N
1978	N	N	N	N	N	N	N	N	N	N	N	N
1979	O	O	O	O	O	O	O	O	N	N	N	N
1980	N	N	N	N	N	N	N	N	N	N	N	N
1981	O	O	O	O	O	O	O	O	N	N	N	N
1982	N	N	N	N	N	N	N	N	N	N	N	N
1983	N	N	N	N	N	N	N	N	N	N	N	N
1984	N	N	N	N	N	N	N	N	N	N	N	N
1985	O	O	O	O	O	O	O	O	N	N	N	N
1986	N	N	N	N	N	N	N	N	N	N	N	N
1987	O	O	O	O	O	O	O	O	N	N	N	N
1988	O	O	O	O	O	O	O	O	N	N	N	N
1989	O	O	O	O	O	O	O	O	N	N	N	N
1990	O	O	O	O	O	O	O	O	N	N	N	N
1991	O	O	O	O	O	O	O	O	N	N	N	N

Note: 'N' denotes gates not operating, 'O' denotes gates are operating.

Table 1-2 (cont.)
Operation of Delta Facilities
under
Alternative 1A

Clifton Court Forebay Intake Gate Priority

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3	4	4	4	4	4	3	2	2	3	3	3
1977	3	4	4	4	4	4	3	2	2	3	3	3
1978	3	4	4	4	4	4	3	2	2	3	3	3
1979	3	4	4	4	4	4	3	2	2	3	3	3
1980	3	4	4	4	4	4	3	2	2	3	3	3
1981	3	4	4	4	4	4	3	2	2	3	3	3
1982	3	4	4	4	4	4	3	2	2	3	3	3
1983	3	4	4	4	4	4	3	2	2	3	3	3
1984	3	4	4	4	4	4	3	2	2	3	3	3
1985	3	4	4	4	4	4	3	2	2	3	3	3
1986	3	4	4	4	4	4	3	2	2	3	3	3
1987	3	4	4	4	4	4	3	2	2	3	3	3
1988	3	4	4	4	4	4	3	2	2	3	3	3
1989	3	4	4	4	4	4	3	2	2	3	3	3
1990	3	4	4	4	4	4	3	2	2	3	3	3
1991	3	4	4	4	4	4	3	2	2	3	3	3

Note: See Figure 7 for description of the values.

Monthly Average Diversion into Clifton Court Forebay (cfs)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	6,652	6,672	7,022	7,236	6,186	3,704	1,415	1,508	3,631	6,684	6,554	3,940
1977	3,667	3,478	3,594	2,561	1,216	835	596	514	490	435	94	1,788
1978	781	1,733	6,084	7,849	3,807	4,334	3,532	3,522	4,309	6,684	6,480	6,437
1979	6,652	6,323	6,320	8,129	6,248	6,492	2,532	2,174	4,980	6,684	6,554	3,445
1980	6,521	6,672	7,066	8,338	4,205	4,083	2,747	2,612	4,350	6,684	6,208	6,588
1981	6,652	5,539	6,990	5,769	6,489	6,399	2,116	1,652	2,878	6,684	6,554	4,658
1982	3,949	6,672	7,050	8,560	8,560	6,577	5,466	4,091	6,672	6,684	5,456	6,588
1983	6,652	6,672	7,592	3,967	4,151	4,096	4,606	4,399	5,191	5,813	6,554	6,529
1984	4,943	4,452	4,066	4,795	5,859	6,172	2,248	1,981	3,974	6,684	6,554	5,228
1985	6,652	6,672	7,029	7,308	6,317	3,781	1,737	2,004	2,814	6,684	6,554	4,428
1986	4,942	4,795	6,957	7,417	8,500	7,531	4,198	2,649	4,175	6,684	6,554	6,204
1987	4,642	3,947	6,133	7,250	7,080	5,436	1,872	1,402	3,317	6,684	6,458	2,276
1988	1,955	922	6,891	7,090	2,362	1,817	1,391	-382	469	402	89	1,270
1989	511	3,625	3,771	4,671	1,824	6,965	2,631	1,893	2,705	6,684	6,554	4,716
1990	4,476	2,749	3,942	7,092	6,139	3,468	1,631	1,250	1,345	990	365	1,528
1991	1,899	2,041	1,418	1,566	110	7,091	1,956	1,385	514	795	73	1,117

Note: Alternative 1A assumes Clifton Court Forebay diversions to meet only Banks pumping demands.

Figure 1-2

Output Locations for Average Flows
(Arrows show sign convention for positive flow)

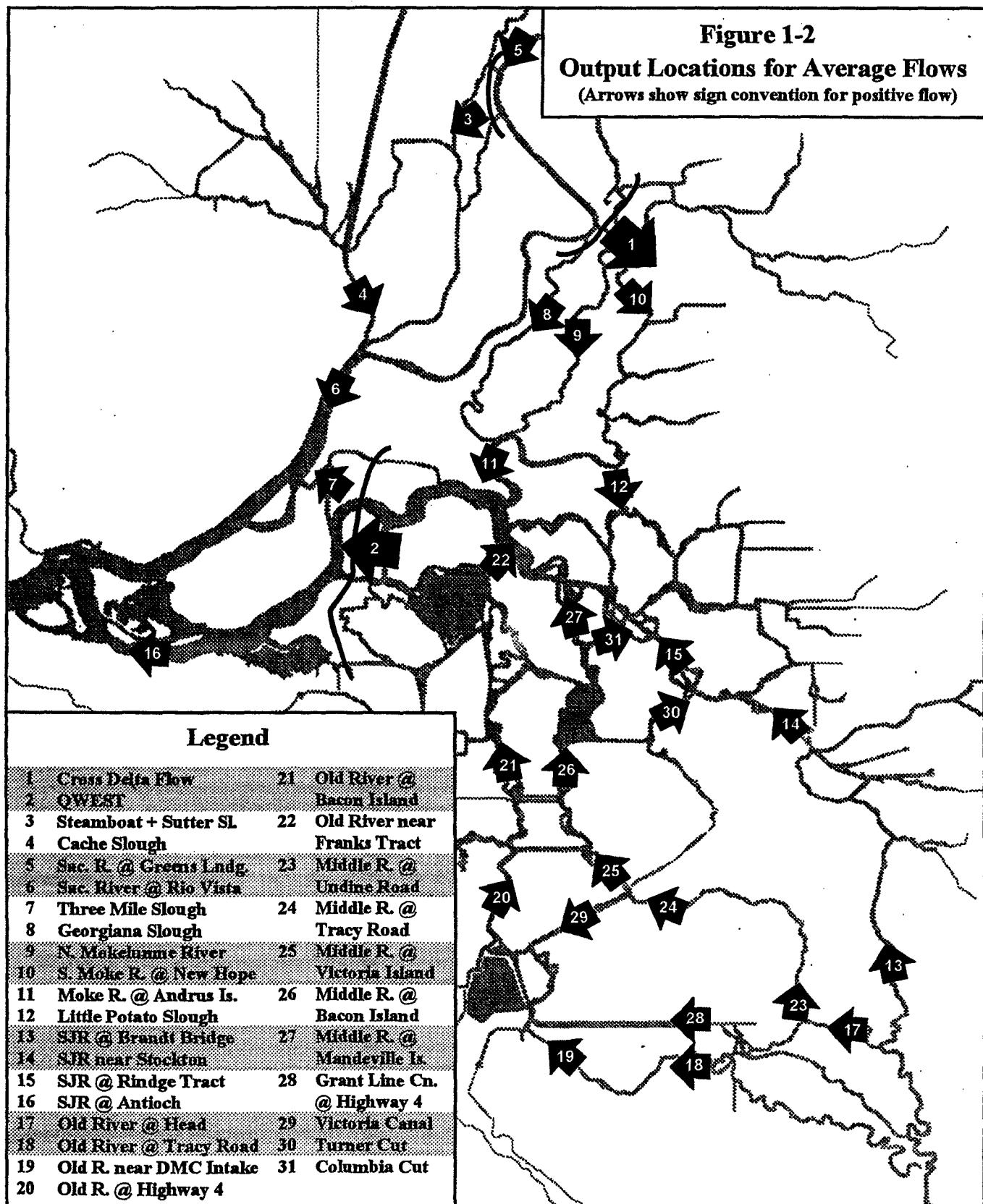


Table 1-3
Monthly Average flow
 (Values in cubic feet per second)

Alternative 1A

Cross Delta Flow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	8833	2659	2652	2699	2926	2728	1840	1840	1965	2619	7116	5832	5696
1977	4794	1740	1771	1845	2218	1495	1753	1753	1433	2005	4008	2790	3990
1978	3774	1188	2399	4745	5196	4514	3614	3614	2524	2478	7559	7803	6783
1979	6783	2434	2455	3150	3924	3703	2583	2583	2057	2957	8777	7619	5391
1980	6618	2708	3039	5653	7050	3952	2718	2718	2273	2366	7571	7151	6436
1981	5934	2368	2648	3129	3387	3492	2584	2584	2087	2469	8714	7792	6086
1982	5677	3780	6318	5301	6688	6771	7175	7175	3803	2884	8157	6437	8513
1983	3247	4229	5613	5844	7973	8115	6702	6702	5277	5254	8346	8191	3247
1984	3096	6240	8020	4840	3935	3870	2510	2510	2128	2813	9049	7725	5958
1985	7647	3868	3152	2713	2827	2676	2152	2152	2444	2438	8676	7747	5920
1986	5691	2082	2622	3115	8699	7131	2681	2681	2076	2115	7720	7741	6563
1987	6404	2220	2427	2671	3079	3293	2189	2189	1785	2735	8617	7790	4105
1988	4647	1341	2704	3311	2308	2066	1811	1811	1825	2380	6272	3026	4061
1989	4075	1873	1894	2279	2214	4526	3077	3077	2293	2431	8794	6908	6112
1990	6205	2122	2305	3024	2625	2390	2091	2091	1412	2615	5102	3193	4198
1991	4778	1480	1316	1444	1990	3636	2436	2436	1699	2081	4660	4293	4149
Avg	5513	2646	3208	3485	4190	4022	2995	2995	2318	2665	7446	6377	5451

QWEST

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1419	-6803	-6932	-6898	-5345	-3185	252	258	-1325	-5340	-2725	-2401	-2103
1977	1085	-2762	-2923	-2542	1206	136	-108	-108	1112	-708	972	751	-439
1978	1942	-779	-6391	941	7254	12142	14514	14515	7067	-567	-78	-3651	-2783
1979	-1124	-6285	-6548	-3029	4493	1361	3905	3909	3001	5408	-3517	-3743	-1664
1980	-2019	-6930	-5942	9661	24139	13634	4612	4611	4860	303	-627	-2967	-2389
1981	-1169	-5829	-6989	-3144	-1809	-1732	693	696	-626	-4888	-4620	-4439	-2619
1982	-1192	-5065	-1280	6562	15554	16314	38276	38281	16503	1189	-1440	-1632	3698
1983	634	4625	19018	32862	51195	60837	25157	25157	24484	34183	11698	-138	205
1984	2274	18750	32067	15671	8260	2090	2383	2395	1300	-4814	-2945	-3178	-2448
1985	-1758	-4243	-5615	-6329	-4270	-1610	1034	1050	-989	-4723	-4522	-4379	-2366
1986	-1132	-4238	-6755	-4747	37928	28627	8265	8266	5872	1342	-453	-3103	-2402
1987	-1773	-4705	-6429	-4058	-2414	-1143	117	123	-1039	-5850	-4495	-4430	-340
1988	-106	-617	-7114	-5715	30	-947	329	330	-749	-3315	-1198	687	-355
1989	1654	-3692	-4079	-5254	1125	-3778	-633	-631	-475	-4857	-4725	-2988	-2251
1990	-1960	-4135	-5289	-6781	-3450	-2246	444	446	563	-5362	103	561	-454
1991	1027	-1649	-1168	-694	2504	-4287	681	686	-12	-2226	492	-411	-375
Avg	-137	-2147	-1398	1032	8525	7263	6245	6249	3722	-690	-1130	-2216	-1193

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Steamboat & Sutter Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	7827	7491	7414	7737	9746	8496	4228	4228	4515	7313	4710	3263	3172
1977	2802	3529	3604	3863	5841	3132	3904	3904	3088	4699	2296	1548	2136
1978	2204	2255	5753	22543	26045	22018	17421	17421	8694	7188	5456	5367	4181
1979	4401	6085	6175	11980	18342	16747	8650	8650	5471	9930	6915	5110	3014
1980	4131	7680	10373	28463	37463	18836	9685	9685	6817	6750	5730	4753	4058
1981	3545	5787	7373	11777	14085	14949	8097	8097	5101	6441	6675	5267	3545
1982	6246	16357	32082	26419	35555	36245	39508	39508	18890	10665	6438	4177	7740
1983	13395	20177	29490	31360	44217	43520	36230	36230	28094	28494	8743	6789	13464
1984	12392	33264	43922	24413	18808	17796	7824	7825	5545	8886	7591	5557	3503
1985	5390	17178	11727	7913	9150	8365	5619	5619	6916	6291	6626	5214	3395
1986	3278	4547	7032	11356	47218	38111	10022	10022	5977	5592	5793	5495	4081
1987	3924	5170	6045	7909	11513	13526	5647	5647	3926	8067	6540	5263	2209
1988	2613	2686	7701	12898	6164	4906	4132	4132	4076	6129	3797	1664	2192
1989	2367	3860	3884	5332	5813	21388	11834	11834	6132	6253	6810	4309	3597
1990	3742	4775	5490	10299	7558	6357	5232	5232	3001	7335	2945	1745	2249
1991	2761	2903	2547	2877	5018	15503	7079	7079	3751	4838	2693	2331	2216
Avg	4876	8984	11913	14196	18909	18118	11570	11570	7500	8429	5610	4241	4047

Cache Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2262	1973	2002	2164	2685	2340	1027	1027	851	1514	753	992	786
1977	611	894	937	1182	1664	927	975	975	1121	842	211	122	468
1978	532	774	2482	21923	14596	23561	5882	5881	2111	1471	1192	1162	951
1979	1080	1716	1637	4703	6476	4988	2289	2289	1242	2266	1516	1101	597
1980	1104	2150	4109	39826	55057	20323	2564	2564	1818	1626	1298	1155	920
1981	852	1534	2121	4018	4566	4473	2059	2057	1118	1285	1412	1152	797
1982	814	7941	32496	29052	32252	16147	47785	47789	5314	2555	1328	810	2056
1983	3819	7616	19063	30504	71766	126392	25623	25622	10732	8344	1987	1560	3635
1984	3364	14903	59391	21877	6228	5510	2042	2042	1208	1991	1631	1206	727
1985	2764	6159	3408	2445	2789	2519	1361	1362	1579	1203	1359	1120	765
1986	782	1512	2744	3672	103145	66125	3601	3600	1357	1033	1114	1167	977
1987	953	1340	1680	2386	3609	4279	1382	1382	732	1737	1342	1099	354
1988	583	763	2682	5352	1823	1327	1023	1024	889	1250	487	88	400
1989	563	1112	1281	1614	1725	6723	3180	3180	1376	1210	1332	818	868
1990	928	1284	1455	3416	3111	1727	1353	1352	640	1507	251	103	415
1991	682	704	690	865	1518	5529	1862	1862	850	1042	206	311	395
Avg	1356	3273	8636	10937	19563	18306	6501	6501	2059	1930	1089	873	944

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	21373	16346	16205	16832	20440	18185	9672	9672	10337	16040	15015	11361	11073
1977	9625	8283	8448	9014	12992	7356	9011	9012	7223	10720	8066	5600	7700
1978	7652	5469	12971	44399	50681	43143	34228	34228	18376	15701	16655	16645	13787
1979	14169	13602	13787	24354	36229	33102	18328	18329	12168	20810	19946	16066	10532
1980	13566	16724	21598	55211	71653	37010	20188	20189	14832	14804	17123	15099	13308
1981	11957	12997	16126	23954	28060	29699	17367	17367	11503	14341	19511	16465	12089
1982	11189	32430	61883	51463	68066	69430	75112	75112	37011	21952	18729	13539	21046
1983	26716	39676	56916	60370	83648	82492	69214	69214	54240	54937	22587	19303	26846
1984	24908	63830	83205	47513	36966	35095	16831	16831	12360	18950	21224	16913	11917
1985	16535	34000	23848	17162	19372	17930	12516	12516	15153	14031	19400	16337	11676
1986	11262	10459	15535	23279	89206	72685	20729	20729	13122	12463	17339	16818	13435
1987	13022	11728	12522	17122	23447	26994	12601	12601	9086	17469	19200	16455	7935
1988	9147	6394	16764	26000	13658	11122	9468	9468	9389	13680	12745	6019	7877
1989	8215	9008	9069	12095	12929	42031	23970	23970	13597	13944	19775	14128	12198
1990	12530	10914	12394	21453	16501	14073	11748	11748	7037	16074	10205	6311	8095
1991	9536	6909	6113	6853	11278	30899	15439	15437	8683	11024	9362	8350	7994
Avg	13838	18673	24274	28567	37195	35703	23526	23526	15882	17934	16680	13463	12344

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	12438	13423	13327	14076	17361	15251	7525	7525	7655	12525	6971	5436	5117
1977	4503	6325	6469	7242	10706	5810	6970	6970	5905	7918	3290	2296	3450
1978	3652	4331	11348	55809	52830	56224	31488	31488	15327	12361	8371	8231	6614
1979	7059	11059	11091	22766	33874	29593	15499	15498	9627	16977	10341	7863	4718
1980	6762	13881	19728	81667	109500	48001	17194	17193	12294	11897	8886	7527	6480
1981	5719	10398	13396	21525	25168	26399	14426	14427	8890	10982	9921	8083	5639
1982	5286	31858	79054	68182	83630	68890	104591	104588	32930	18320	9711	6496	12238
1983	23342	37296	62023	76557	135451	189241	77871	77871	51541	49627	13364	10492	23235
1984	21497	62964	122390	57604	33874	31551	14025	14027	9654	15292	11252	8569	5504
1985	9999	31333	20740	14711	16745	15468	10007	10008	12124	10692	9823	7997	5410
1986	5286	8512	13618	20756	171165	121145	18712	18711	10533	9512	8724	8437	6543
1987	6302	9259	10939	14595	20695	24115	10048	10048	6678	13862	9724	8033	3404
1988	4214	4961	14480	24519	11362	8871	7388	7389	7106	10516	5512	2391	3433
1989	3895	7049	7251	9917	10767	38097	20559	20558	10713	10647	9992	6582	5820
1990	6059	8610	9854	18968	14916	11519	9385	9385	5288	12562	4172	2511	3511
1991	4520	5199	4660	5439	9293	28428	12732	12732	6605	8438	3816	3499	3454
Avg	8158	16654	26273	32146	47334	44913	23651	23651	13304	14508	8367	6528	6536

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Three Mile Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1757	-3170	-3186	-3208	-3105	-2679	-1774	-1772	-2041	-2936	-2195	-2045	-1979
1977	-1421	-2185	-2217	-2185	-1772	-1712	-1812	-1813	-1564	-1988	-1439	-1428	-1643
1978	-1284	-1801	-3007	-3405	-2293	-1646	-443	-442	-1076	-2165	-1844	-2397	-2167
1979	-1901	-2970	-3020	-2909	-2061	-2436	-1566	-1565	-1432	-3143	-2489	-2392	-1893
1980	-2047	-3233	-3307	-3012	-1842	-1145	-1546	-1546	-1279	-1989	-1950	-2245	-2095
1981	-1838	-2867	-3196	-2898	-2808	-2826	-2036	-2035	-1980	-2793	-2647	-2516	-2088
1982	-1839	-3558	-4702	-2950	-2112	-1399	715	715	-172	-2129	-2121	-1981	-1404
1983	-2382	-2185	-732	972	-1290	-1459	-336	-336	491	2076	-196	-1942	-2447
1984	-2071	-818	-1180	-1137	-1502	-2409	-1762	-1760	-1730	-2975	-2442	-2336	-2059
1985	-2129	-3382	-3266	-3141	-2902	-2424	-1766	-1764	-2201	-2752	-2626	-2500	-2038
1986	-1833	-2536	-3178	-3142	-3590	-1690	-1021	-1021	-1032	-1712	-1920	-2318	-2099
1987	-1965	-2630	-2988	-2781	-2759	-2663	-1916	-1916	-1947	-3079	-2612	-2510	-1625
1988	-1600	-1789	-3259	-3400	-1980	-2024	-1753	-1753	-1924	-2526	-1888	-1444	-1635
1989	-1319	-2362	-2432	-2740	-1778	-3531	-2482	-2481	-2048	-2767	-2667	-2208	-2034
1990	-1980	-2511	-2753	-3387	-2689	-2352	-1832	-1831	-1622	-2946	-1613	-1465	-1653
1991	-1434	-1961	-1862	-1815	-1501	-3296	-1957	-1957	-1776	-2240	-1536	-1660	-1641
Avg	-1800	-2497	-2768	-2571	-2088	-2231	-1455	-1455	-1458	-2254	-2012	-2087	-1906

Georgiana Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2119	2652	2644	2696	2920	2721	1833	1832	1946	2596	1783	1497	1466
1977	1291	1733	1764	1843	2212	1490	1744	1744	1425	1987	1140	889	1146
1978	1100	1182	2393	4771	5202	4526	3613	3613	2517	2463	1832	1887	1685
1979	1683	2428	2448	3159	3938	3704	2578	2578	2049	2940	2089	1852	1426
1980	1676	2702	3036	5666	7064	3949	2713	2713	2265	2355	1909	1791	1669
1981	1523	2361	2641	3128	3384	3491	2578	2578	2076	2449	2077	1888	1573
1982	1465	3775	6320	5320	6689	6786	7171	7171	3793	2869	2001	1673	2089
1983	3240	4225	5613	5859	7988	8132	6703	6703	5270	5240	2069	2034	3241
1984	3089	6234	8018	4838	3935	3865	2504	2503	2113	2795	2163	1931	1558
1985	1867	3863	3149	2716	2826	2681	2146	2145	2433	2421	2069	1879	1528
1986	1470	2077	2616	3120	8720	7138	2676	2676	2067	2102	1892	1901	1663
1987	1608	2213	2420	2669	3077	3293	2182	2182	1772	2715	2058	1887	1156
1988	1277	1335	2696	3316	2303	2059	1805	1805	1813	2363	1568	930	1158
1989	1156	1867	1887	2277	2212	4524	3071	3071	2282	2414	2094	1708	1577
1990	1596	2115	2297	3024	2626	2385	2085	2084	1404	2600	1347	965	1173
1991	1282	1473	1309	1441	1982	3633	2429	2429	1690	2074	1277	1197	1160
Avg	1715	2640	3203	3490	4192	4024	2989	2989	2307	2649	1836	1619	1579

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

North Mokelumne River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	5388	92	47	72	107	95	0	0	-99	-188	3894	3168	3102
1977	2573	-25	-24	12	-69	-55	9	9	-17	-146	1943	1284	2019
1978	1935	73	119	1708	1083	1418	1286	1286	209	-155	4211	4395	3799
1979	3843	-29	78	559	1395	993	468	468	181	-211	4979	4309	2889
1980	3681	-53	58	2264	3129	1234	572	572	857	604	4681	4486	4057
1981	3400	45	64	317	175	780	180	180	-8	-191	4921	4407	3342
1982	3159	354	741	3312	4699	3838	8392	8392	2396	812	5203	4136	5686
1983	183	1482	4664	5451	8046	11072	3067	3067	4456	2569	5736	5605	-877
1984	191	3469	6516	2159	1779	987	583	583	512	205	5377	4574	3497
1985	4538	534	229	163	465	418	278	278	-36	-193	4906	4388	3241
1986	3180	149	140	530	11148	4865	1007	1007	810	514	4676	4741	406
1987	3662	67	67	106	274	534	-18	-18	-78	201	4893	4399	2102
1988	2469	124	155	224	60	-27	-41	-41	-92	-167	3368	1418	2065
1989	2092	23	43	-8	75	688	35	35	22	-67	4978	3839	3378
1990	3426	53	99	13	131	124	18	18	17	195	2616	1515	2168
1991	2544	-45	13	19	65	638	39	39	-54	-130	2316	2159	2112
Avg	2892	388	791	1056	2035	1725	987	987	567	179	4294	3676	3025

South Mokelumne River @ New Hope

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1709	255	233	243	270	244	100	100	83	130	1347	1161	1146
1977	983	89	95	111	81	36	107	107	47	68	834	587	853
1978	810	80	239	1063	781	828	703	703	184	77	1405	1460	1315
1979	1301	169	150	469	841	677	356	356	182	141	1611	1442	1099
1980	1280	187	259	1290	1614	720	410	410	517	439	1580	1542	1441
1981	1206	199	241	366	311	600	251	251	129	113	1600	1469	1213
1982	1158	447	781	1719	2240	1919	3288	3288	1217	558	1729	1476	1833
1983	276	904	2146	2320	3152	4063	1587	1587	2047	1237	1824	1856	623
1984	262	1764	2758	1176	1014	701	428	428	380	334	1738	1536	1278
1985	1497	530	342	280	427	372	264	264	152	108	1595	1464	1191
1986	1165	213	270	463	4082	2213	573	573	468	368	1573	1590	1421
1987	1273	193	220	236	333	462	127	127	72	136	1593	1466	869
1988	981	120	281	341	161	108	75	75	61	104	1220	634	873
1989	856	133	147	154	150	641	232	232	162	169	1616	1326	1219
1990	1218	121	121	236	234	219	132	132	63	128	1033	672	895
1991	981	52	65	68	120	553	127	127	65	90	949	904	876
Avg	1060	341	522	658	988	897	548	548	364	263	1453	1287	1134

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Mokelumne River @ Andrus Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	5819	1749	1699	1786	2004	1898	1286	1286	1184	1413	4101	3395	3337
1977	2895	1117	1130	1261	1540	1004	1209	1209	1008	1168	2190	1549	2302
1978	2278	867	1607	4986	4876	4892	4183	4184	2228	1571	4482	4617	4053
1979	4148	1510	1465	2704	4237	3567	2365	2366	1701	1663	5188	4523	3143
1980	3979	1659	2032	6335	8461	4302	2574	2574	2493	2184	4935	4653	4263
1981	3673	1531	1713	2410	2495	3106	1985	1985	1408	1326	5088	4602	3595
1982	3420	2806	5059	6852	9142	8617	13155	13155	5234	2760	5393	4325	6133
1983	2510	4431	8481	9820	13954	16855	8128	8129	8193	6994	6368	5849	3064
1984	2444	7857	12085	5745	4568	3634	2333	2334	1933	1924	5583	4816	3706
1985	4828	3051	2289	1921	2299	2258	1770	1771	1620	1318	5079	4587	3490
1986	3440	1471	1775	2596	16812	10068	3057	3057	2355	1955	4895	4933	4261
1987	3919	1474	1572	1890	2365	2790	1511	1511	1109	1488	5076	4599	2369
1988	2759	1024	1834	2433	1684	1394	1243	1243	1149	1352	3542	1671	2337
1989	2428	1226	1246	1474	1675	3672	2159	2158	1582	1428	5149	4051	3648
1990	3703	1318	1368	1983	1914	1724	1486	1486	1014	1436	2829	1769	2424
1991	2851	942	889	1027	1529	3006	1696	1696	1127	1246	2564	2414	2376
Avg	3443	2127	2890	3451	4972	4549	3134	3134	2209	1952	4529	3897	3406

Little Potato Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3336	1180	1147	1214	1255	1074	550	550	536	834	2624	2320	2292
1977	1866	613	631	713	640	401	518	518	349	475	1424	1041	1633
1978	1482	407	1099	2935	2336	2114	1448	1447	564	566	2649	2943	2657
1979	2588	1000	977	1606	2191	1853	975	974	584	939	3186	2912	2159
1980	2590	1112	1290	3145	3570	1571	1057	1057	1031	1016	2958	2999	2809
1981	2368	1002	1162	1413	1363	1820	935	935	649	760	3183	2981	2440
1982	2300	1746	2867	3816	4558	4190	5679	5679	2039	1267	3236	2790	3407
1983	1127	2255	4021	4159	5489	6725	3256	3255	3477	1821	2958	3471	1591
1984	1015	3593	5416	2432	2172	1870	1094	1094	906	1148	3373	3045	2505
1985	3012	1876	1466	1286	1429	1288	817	817	770	748	3178	2976	2386
1986	2297	920	1208	1668	7685	4322	1149	1149	873	796	2937	3116	2804
1987	2534	925	1062	1140	1350	1580	667	667	491	903	3189	2981	1654
1988	1887	495	1271	1578	809	677	517	517	499	715	2284	1125	1649
1989	1588	736	771	959	755	2226	1074	1074	734	855	3220	2649	2466
1990	2464	796	867	1319	1139	952	646	645	395	860	1853	1201	1701
1991	1871	465	426	491	592	1870	729	729	455	619	1679	1677	1663
Avg	2145	1195	1605	1867	2333	2158	1319	1319	897	895	2746	2514	2239

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	736	-52	2	-99	70	193	481	482	285	-138	-257	-151	-41
1977	554	299	178	117	326	356	380	379	469	69	116	147	108
1978	284	298	-94	557	2683	4560	6708	6708	5110	2958	460	-71	291
1979	926	117	60	948	2823	2905	2205	2205	2330	465	-147	-118	163
1980	364	-65	92	4681	8156	5759	2586	2586	2937	2888	678	-43	233
1981	1128	70	-50	199	370	293	605	605	416	19	-377	-317	-41
1982	164	-76	73	2241	5862	5778	12271	12271	7633	4018	471	356	1803
1983	3194	3201	7525	10083	16370	19151	9071	9071	9383	17056	6065	483	2648
1984	2830	5529	8951	5512	3335	2060	1174	1175	1044	234	-122	-59	148
1985	61	-6	25	-40	273	299	649	650	409	27	-366	-317	-17
1986	174	48	-98	61	10502	11012	4373	4373	3611	3428	47	-80	63
1987	619	51	-23	60	178	258	494	494	337	-168	-378	-327	167
1988	243	282	-192	-190	240	227	469	469	360	-60	-198	105	89
1989	227	59	34	-83	293	-110	445	445	506	-146	-363	-210	-53
1990	-55	30	-65	-199	14	122	563	563	574	179	-62	72	131
1991	166	199	210	208	345	84	734	734	576	-8	17	19	119
Avg	726	624	1039	1504	3240	3309	2701	2701	2249	1904	347	-34	363

SJR near Stockton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	716	-79	-27	-95	60	152	433	433	189	-259	-381	-208	-76
1977	521	275	153	132	317	323	304	304	425	-51	-8	68	69
1978	246	278	-82	689	2753	4538	6733	6733	5037	2843	340	-153	246
1979	885	98	34	1015	2904	2919	2158	2158	2254	344	-262	-194	113
1980	337	-86	81	4779	8266	5749	2546	2545	2874	2785	572	-119	188
1981	1089	43	-74	260	366	332	559	560	341	-105	-500	-399	-87
1982	140	-83	85	2374	5906	5864	12279	12279	7562	3924	356	278	1776
1983	3171	3251	7561	10223	16481	19306	9078	9077	9321	16944	5950	403	2607
1984	2796	5549	9022	5521	3349	2034	1121	1122	963	119	-244	-140	95
1985	36	6	25	-23	274	306	589	590	324	-92	-484	-393	-56
1986	142	43	-78	114	10689	10940	4346	4346	3542	3314	-72	-163	25
1987	581	23	-47	81	220	264	426	427	255	-283	-494	-408	118
1988	208	266	-204	-142	232	195	432	432	297	-164	-335	19	38
1989	187	39	22	-74	303	-89	376	376	428	-255	-494	-292	-78
1990	-83	14	-94	-187	29	88	501	501	536	-296	-192	-12	80
1991	128	171	186	214	335	122	682	682	512	-113	-145	-100	65
Avg	694	613	1035	1555	3280	3315	2660	2660	2179	1791	225	-113	320

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

SJR @ Rindle Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-212	-927	-895	-943	-721	-439	160	160	-160	-910	-1195	-915	-776
1977	30	-202	-312	-299	147	127	56	55	298	-279	-290	-130	-371
1978	-1	17	-869	-91	2062	3872	5850	5850	4138	1846	-448	-1159	-696
1979	-77	-709	-778	109	1999	1835	1633	1634	1721	-488	-1327	-1189	-571
1980	-556	-929	-775	3592	7276	4986	1960	1960	2237	1790	-399	-1085	-744
1981	132	-711	-936	-401	-228	-319	202	203	-2	-733	-1594	-1417	-871
1982	-549	-926	-782	1416	4548	4726	10838	10837	6471	2643	-707	-619	753
1983	2073	2249	6217	9363	15056	17412	7999	8000	8090	14868	4614	-604	1521
1984	1958	4763	8028	4788	2628	1194	713	715	555	-650	-1320	-1141	-739
1985	-877	-820	-824	-846	-504	-234	280	282	-79	-704	-1571	-1405	-810
1986	-540	-553	-916	-691	9078	9453	3599	3599	2860	2319	-858	-1168	-866
1987	-340	-618	-846	-552	-358	-281	115	116	-61	-976	-1578	-1422	-330
1988	-311	-2	-1065	-945	-54	-134	185	186	3	-625	-951	-197	-394
1989	-94	-476	-527	-722	114	-892	-82	-82	52	-852	-1610	-1120	-838
1990	-824	-555	-744	-1024	-521	-374	205	205	317	-937	-617	-249	-384
1991	-273	-153	-93	-35	287	-684	336	336	222	-479	-502	-507	-372
Avg	-29	-35	243	795	2551	2516	2128	2129	1666	990	-647	-895	-406

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3024	-3768	-3881	-3778	-2353	-662	1830	1832	473	-2642	-782	-548	-305
1977	2313	-720	-849	-464	2826	1687	1494	1491	2486	1023	2136	1945	1025
1978	3020	875	-3485	4463	9505	13748	14726	14723	7883	1323	1483	-1485	-813
1979	585	-3428	-3663	-128	6525	3632	5267	5271	4201	-2531	-1293	-1573	25
1980	-128	-3818	-2732	12639	25968	14601	5951	5949	5915	2032	1053	-953	-489
1981	478	-3099	-3916	-327	884	987	2523	2519	1133	-2367	-2250	-2154	-712
1982	487	-1612	3351	9634	17523	17664	37285	37276	16392	3058	408	118	4919
1983	2856	6707	19627	31888	49794	62225	25299	25297	23689	31711	11571	1565	2456
1984	4154	19389	33088	16646	9628	4341	3950	3956	2797	-2096	-780	-1072	-596
1985	218	-942	-2447	-3263	-1470	718	2588	2596	983	-2236	-2163	-2091	-511
1986	524	-1828	-3682	-1651	41526	30207	9047	9045	6666	2765	1188	-1019	-475
1987	10	-2211	-3569	-1374	253	1415	1827	1833	677	-3009	-2116	-2133	1085
1988	1314	1024	-3969	-2377	1876	900	1890	1894	972	-1033	408	1889	1080
1989	2772	-1459	-1779	-2607	2774	-385	1642	1645	1344	-2337	-2319	-998	-366
1990	-150	-1766	-2677	-3469	-875	-50	2058	2060	2004	-2667	1439	1788	995
1991	2275	159	537	1002	3851	-1095	2443	2444	1565	-182	1752	1025	1062
Avg	1485	219	1247	3552	10515	9371	7489	7489	4949	1301	608	-356	524

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Old River @ Head

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3076	1836	2010	1751	2037	1904	1627	1627	1258	780	697	868	1265
1977	2245	1878	1447	1178	1013	1134	1284	1284	1244	433	591	575	989
1978	1006	1136	1581	2968	4733	6862	9440	9440	7584	5107	2403	1765	2442
1979	3313	2164	2039	3433	5019	5193	4028	4028	4131	2599	1656	1642	1802
1980	2510	1791	2193	7215	11076	8280	4442	4442	4836	5029	3021	1777	2329
1981	3510	1964	1876	2155	2291	2313	2157	2157	1621	1178	1021	1093	1476
1982	1820	1734	2122	4600	8615	8485	15496	15496	10556	6441	2855	2521	4127
1983	5405	5456	10504	13102	19496	22111	12098	12098	12491	20358	8856	2825	4840
1984	4862	7993	11921	7964	5394	4262	3038	3037	2871	2089	1728	1794	2027
1985	1927	1924	2048	1906	2438	2097	2133	2132	1780	1167	1039	1079	1479
1986	1798	1482	1731	2144	13685	14253	6613	6613	5651	5627	1480	1751	1910
1987	2927	1616	1808	1629	1852	2050	1793	1793	1343	797	988	1062	1195
1988	1569	1092	1426	1413	1095	1131	1576	1576	1314	580	433	501	927
1989	931	1211	1250	1301	1035	1728	2031	2031	1949	645	1069	900	1382
1990	1327	1223	1224	1414	1346	1275	1928	1928	1728	662	422	474	1103
1991	1055	1029	933	924	809	2242	2356	2356	1883	526	406	537	996
Avg	2455	2221	2882	3444	5121	5333	4503	4502	3890	3376	1792	1323	1893

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	516	361	379	349	390	380	302	302	237	174	135	162	287
1977	397	356	276	255	173	200	240	240	217	73	102	97	205
1978	178	201	327	504	718	977	1339	1339	1050	747	399	363	446
1979	540	401	384	537	716	718	641	641	651	462	347	345	379
1980	446	354	404	986	1657	1143	690	690	730	740	500	366	432
1981	561	382	362	403	390	408	406	406	307	248	255	266	326
1982	372	351	408	674	1192	1190	2435	2435	1503	888	497	465	642
1983	776	759	1495	2065	3301	3877	1800	1800	1847	3303	1222	495	717
1984	714	1104	1802	1100	746	627	524	524	500	409	358	366	401
1985	373	375	386	373	438	408	400	400	343	247	258	264	324
1986	342	292	344	402	2129	2208	928	928	820	802	261	362	376
1987	495	344	357	290	321	370	342	342	253	195	253	265	241
1988	336	202	300	306	198	214	298	298	254	147	145	85	200
1989	171	243	258	297	181	347	395	395	371	156	267	181	306
1990	295	281	278	307	242	249	366	366	319	198	90	83	237
1991	205	188	166	172	122	411	431	431	350	114	78	127	215
Avg	420	387	495	564	807	858	721	721	610	556	323	268	358

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Old River near DMC intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	505	347	363	348	380	313	229	229	116	27	-21	86	250
1977	379	343	264	249	154	151	132	132	156	-89	-58	-10	161
1978	148	192	320	536	748	783	1325	1325	946	577	250	258	396
1979	505	394	372	550	723	703	587	587	541	294	207	249	318
1980	433	344	397	1006	1711	1136	630	630	635	580	374	269	377
1981	528	369	351	406	378	397	330	330	198	80	104	161	273
1982	358	349	410	728	1191	1134	2433	2433	1405	752	356	366	624
1983	764	782	1514	2183	3367	4002	1792	1792	1761	3136	1083	395	675
1984	689	1108	1849	1096	744	607	457	457	390	257	209	265	342
1985	361	378	381	369	427	390	309	309	210	78	113	167	282
1986	319	288	338	407	2250	2042	889	889	718	629	115	253	341
1987	461	327	345	282	319	335	235	235	128	39	109	151	177
1988	308	192	294	310	188	180	215	216	157	-14	-32	-26	138
1989	135	233	250	286	171	313	279	279	244	-10	98	72	285
1990	275	268	265	296	207	192	260	260	275	21	-76	-27	178
1991	174	173	155	164	110	344	356	356	257	41	-88	22	146
Avg	396	380	492	576	817	814	654	654	509	395	171	166	310

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-5530	-6332	-6413	-6661	-5790	-3941	-1063	-1061	-1581	-4143	-5395	-4983	-4824
1977	-2478	-3045	-3089	-3148	-678	-777	-959	-960	-55	-708	-828	-646	-2589
1978	-998	-1315	-6025	-6070	-2209	-170	1384	1384	-105	-2998	-4113	-6773	-6083
1979	-5480	-5846	-5893	-6039	-3733	-4650	-914	-913	-539	-4704	-7133	-6887	-4345
1980	-5817	-6339	-6272	-3660	1682	1310	-924	-924	-622	-3066	-5389	-6545	-6197
1981	-5307	-5447	-6471	-4993	-4046	-4814	-1625	-1623	-1491	-3678	-7618	-7306	-5419
1982	-4508	-6348	-6286	-5360	-2983	-2391	4420	4421	-1443	-3849	-6287	-5499	-4884
1983	-3992	-3773	-1093	4613	8963	10327	2761	2761	2545	5986	-1726	-6070	-4442
1984	-2400	1136	3229	1190	-1318	-3549	-1225	-1218	-1118	-4514	-7110	-6799	-5489
1985	-6339	-6213	-6350	-6576	-5594	-3754	-1164	-1156	-1916	-3582	-7581	-7287	-5185
1986	-4430	-4357	-6527	-6456	543	1543	-118	-118	-168	-2357	-4691	-6847	-6126
1987	-5673	-4575	-5921	-4894	-4362	-3983	-1353	-1351	-1371	-4481	-7584	-7322	-2590
1988	-3103	-1453	-6708	-6754	-1711	-1946	-1035	-1034	-1326	-2769	-3630	-783	-2613
1989	-1339	-3620	-3946	-5185	-1050	-6608	-2492	-2491	-1624	-3743	-7585	-5617	-5354
1990	-5191	-3997	-4806	-6804	-4433	-3118	-1186	-1184	-644	-4201	-2048	-972	-2758
1991	-2247	-1890	-1524	-1553	196	-6389	-1274	-1273	-941	-1990	-1487	-2320	-2537
Avg	-4052	-3963	-4631	-4272	-1658	-2057	-423	-421	-595	-2800	-5013	-5166	-4465

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Old River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-3587	-4147	-4207	-4342	-3788	-2599	-740	-738	-1109	-2813	-3643	-3296	-3152
1977	-1603	-2000	-2032	-2032	-421	-507	-676	-677	-41	-567	-639	-481	-1694
1978	-649	-843	-3935	-3837	-1282	111	1142	1142	25	-1994	-2758	-4448	-3960
1979	-3552	-3824	-3863	-3882	-2326	-2959	-562	-561	-346	-3156	-4742	-4536	-2856
1980	-3786	-4149	-4100	-2195	1502	1063	-553	-553	-364	-2011	-3593	-4311	-4052
1981	-3453	-3570	-4241	-3234	-2625	-3123	-1086	-1085	-1023	-2502	-5072	-4817	-3553
1982	-2935	-4142	-4096	-3294	-1738	-1299	3361	3362	1144	-2473	-4182	-3630	-3150
1983	-2526	-2347	-410	3575	6698	7807	2164	2164	1953	4447	-1047	-3999	-2851
1984	-1501	955	2516	1002	-733	-2279	-808	-804	-766	-3029	-4733	-4482	-3603
1985	-4124	-4044	-4146	-4270	-3645	-2433	-785	-779	-1310	-2429	-5041	-4797	-3396
1986	-2888	-2850	-4264	-4176	863	1467	37	37	-55	-1542	-3158	-4516	-3998
1987	-3700	-3000	-3883	-3181	-2825	2587	-930	-929	-954	-3013	-5035	-4824	-1699
1988	-2036	-954	-4395	-4376	-1097	-1279	-702	-701	-914	-1916	-2533	-584	-1745
1989	-885	-2365	-2584	-3372	-649	-4297	-1656	-1656	-1109	-2521	-5036	-3696	-3484
1990	-3387	-2616	-3155	-4426	-2894	-2040	-811	-810	-386	-2866	-1455	-703	-1830
1991	-1469	-1229	-994	-988	153	-4138	-830	-829	-636	-1400	-1078	-1596	-1681
Avg	-2630	-2570	-2987	-2689	-925	-1193	-215	-214	-368	-1862	-3359	-3420	-2919

Old River near Franks Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-5051	-3806	-3807	-3877	-3776	-3354	-2438	-2438	-2533	-3202	-4375	-4073	-4050
1977	-3423	-2839	-2833	-2889	-2458	-2310	-2429	-2430	-2171	-2357	-2808	-2552	-3214
1978	-2864	-2396	-3696	-5036	-4322	-4105	-3707	-3707	-3211	-3414	-4384	-4959	-4660
1979	-4596	-3632	-3616	-4218	-4493	-4480	-2998	-2998	-2758	-3571	-5154	-4904	-3908
1980	-4520	-3793	-3933	-5507	-5333	-3672	-3141	-3141	-3142	-3660	-4805	-4883	-4696
1981	-4393	-3545	-3816	-3772	-3597	-3992	-2831	-2831	-2830	-2627	-3131	-5204	-4998
1982	-4017	-4209	-5073	-5683	-6367	-6026	-6625	-6625	-4178	-4198	-5115	-4605	-5180
1983	-3963	-4607	-5851	-5240	-6341	-7342	-4960	-4961	-5123	-4827	-5073	-5222	-4206
1984	-3538	-4892	-6308	-4182	-4077	-4111	-2944	-2942	-2824	-3565	-5278	-4988	-4352
1985	-4835	-4254	-4023	-3916	-3864	-3435	-2644	-2642	-2801	-3105	-5192	-4987	-4135
1986	-4013	-3282	-3865	-4175	-8735	-6279	-3359	-3359	-3076	-3485	-4551	-5034	-4647
1987	-4485	-3313	-3639	-3542	-3610	-3697	-2584	-2584	-2490	-3351	-5184	-4993	-3243
1988	-3430	-2427	-3882	-4138	-2718	-2669	-2413	-2413	-2500	-2885	-3810	-2610	-3193
1989	-2965	-3004	-3075	-3426	-2568	-4541	-3106	-3107	-2733	-3169	-5256	-4503	-4260
1990	-4210	-3106	-3302	-3972	-3456	-3080	-2543	-2542	-2297	-3214	-3248	-2676	-3273
1991	-3276	-2518	-2412	-2462	-2254	-4302	-2700	-2700	-2422	-2666	-3059	-3211	-3239
Avg	-3974	-3476	-3946	-4127	-4248	-4212	-3214	-3214	-2930	-3363	-4531	-4325	-4036

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Middle River @ Undine Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	62	-17	-10	-26	-3	28	67	67	60	10	-7	-13	-7
1977	68	35	21	9	46	52	62	62	64	40	44	35	19
1978	45	40	19	29	216	451	695	695	518	273	77	-3	24
1979	81	0	-3	57	215	221	202	202	228	72	-2	-10	21
1980	30	-18	-4	448	864	597	235	235	281	263	81	-1	19
1981	96	-1	-16	5	33	17	73	74	67	34	-26	-32	-6
1982	16	-21	-6	152	587	576	1333	1333	801	381	60	41	142
1983	278	263	779	1091	1819	2143	967	967	999	1870	618	52	213
1984	251	576	966	571	302	159	131	131	134	50	3	-2	15
1985	-2	-12	-10	-24	12	25	84	85	67	32	-27	-34	-4
1986	19	-1	-23	-15	1128	1175	437	437	357	327	31	-4	1
1987	56	1	-12	0	11	21	71	71	63	5	-32	-35	28
1988	32	37	-33	-41	30	34	59	59	55	17	4	32	19
1989	36	5	0	-22	35	-27	56	56	80	7	-25	-15	-12
1990	-10	1	-12	-37	-3	17	76	76	76	6	24	28	23
1991	27	27	31	26	50	-12	92	92	87	25	30	12	23
Avg	68	57	103	139	334	342	290	290	246	213	53	3	32

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	16	-68	-68	-58	-52	-61	7	7	-79	-161	-169	-89	-60
1977	8	-17	-32	-19	-3	-15	-36	-36	14	-125	-115	-68	-44
1978	-19	-6	-70	40	219	470	678	678	423	101	-90	-117	-40
1979	13	-45	-59	50	208	188	157	157	127	-110	-164	-116	-51
1980	-20	-69	-47	457	883	563	195	195	197	105	-66	-107	-47
1981	30	-55	-70	-6	-3	0	29	29	-33	-154	-201	-145	-75
1982	-34	-61	-42	171	578	607	1313	1313	704	238	-100	-66	94
1983	229	233	747	1140	1836	2192	947	947	921	1700	455	-61	154
1984	192	531	945	552	291	111	66	66	20	-122	-169	-115	-61
1985	-50	-59	-55	-35	-19	-2	24	24	-45	-145	-193	-139	-66
1986	-36	-41	-65	-22	1161	1190	403	403	265	157	-134	-118	-55
1987	-10	-52	-65	-35	-6	-11	-7	-7	-60	-165	-183	-140	-44
1988	-27	-13	-83	-49	-9	-35	22	22	-28	-140	-175	-81	-56
1989	-30	-45	-46	-45	14	-59	-8	-8	-33	-153	-197	-122	-58
1990	-63	-50	-69	-66	-43	-46	13	13	28	-177	-147	-83	-51
1991	-37	-26	-24	-6	-2	-28	35	35	-8	-131	-138	-95	-54
Avg	10	10	56	129	316	317	240	240	151	45	-112	-104	-32

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Middle River @ Victoria Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-2566	-2956	-2995	-3071	-2720	-1931	-571	-570	-876	-2091	-2631	-2368	-2284
1977	-1221	-1494	-1517	-1521	-385	-442	-550	-550	-81	-520	-577	-436	-1295
1978	-547	-689	-2818	-2774	-967	106	956	956	75	-1460	-2067	-3159	-2825
1979	-2553	-2741	-2769	-2770	-1682	-2123	-415	-415	-281	-2326	-3348	-3194	-2090
1980	-2694	-2958	-2926	-1521	1262	849	-400	-400	-279	-1485	-2599	-3055	-2868
1981	-2467	-2577	-3015	-2343	-1941	-2271	-814	-813	-804	-1892	-3560	-3373	-2549
1982	-2138	-2961	-2946	-2408	-1170	-850	2807	2807	956	1755	-2988	-2617	-2261
1983	-1790	-1700	-197	2852	5497	6556	1786	1786	1610	3642	-702	-2859	-2037
1984	-1099	749	2038	793	-538	-1676	-615	-612	-614	-2244	-3347	-3165	-2585
1985	-2914	-2908	-2960	-3017	-2620	-1799	-601	-598	-1012	-1840	-3537	-3358	-2444
1986	-2106	-2084	-3027	-2967	861	1329	84	84	-32	-1142	-2321	-3186	-2834
1987	-2636	-2196	-2779	-2316	-2073	-1912	-710	-708	-762	-2243	-3533	-3374	-1296
1988	-1519	-756	-3105	-3087	-867	-997	-535	-534	-721	-1485	-1923	-511	-1319
1989	-719	-1759	-1904	-2428	-538	-3056	-1237	-1237	-866	-1914	-3556	-2673	-2502
1990	-2437	-1937	-2298	-3123	-2116	-1539	-617	-616	-342	-2142	-1163	-599	-1381
1991	-1132	-968	-798	-789	-39	-2950	-650	-650	-524	-1115	-899	-1245	-1289
Avg	-1909	-1871	-2126	-1906	-622	-794	-130	-129	-285	-1376	-2422	-2448	-2116

Middle River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-4108	-4649	-4701	-4828	-4245	-3012	-949	-947	-1407	-3283	-4146	-3763	-3644
1977	-1969	-2314	-2343	-2364	-635	-733	-919	-920	-229	-831	-936	-727	-2079
1978	-913	-1107	-4415	-4320	-1616	-94	978	978	-250	-2451	-3319	-5129	-4577
1979	-4133	-4302	-4341	-4359	-2734	-3453	-782	-781	-620	-3734	-5381	-5158	-3332
1980	-4311	-4648	-4590	-2634	1386	918	-780	-780	-654	-2517	-4162	-4925	-4612
1981	-3970	-4032	-4735	-3658	-3003	-3544	-1334	-1332	-1337	-3015	-5727	-5456	-4071
1982	-3399	-4659	-4626	-3766	-2181	-1657	3347	3347	914	-3041	-4795	-4202	-3674
1983	-2995	-2786	-744	3612	6927	8130	2104	2104	1762	4318	-1482	-4608	-3368
1984	-1881	765	2417	844	-1011	-2672	-1039	-1033	-1066	-3584	-5376	-5107	-4137
1985	-4670	-4555	-4642	-4750	-4094	-2796	-1003	-998	-1653	-2937	-5692	-5432	-3901
1986	-3350	-3246	-4754	-4659	601	1266	-154	-153	-324	-2013	-3690	-5144	-4550
1987	-4225	-3424	-4352	-3592	-3215	-2963	-1163	-1161	-1259	-3564	-5682	-5455	-2085
1988	-2393	-1179	-4881	-4870	-1358	-1557	-901	-901	-1182	-2305	-2949	-829	-2075
1989	-1157	-2743	-2965	-3787	-867	-4804	-1994	-1993	-1432	-3051	-5747	-4319	-3990
1990	-3873	-3021	-3577	-4919	-3287	-2405	-1028	-1026	-622	-3349	-1819	-968	-2191
1991	-1810	-1528	-1262	-1243	17	-4654	-1107	-1106	-911	-1736	-1424	-1945	-2060
Avg	-3072	-2964	-3407	-3081	-1207	-1502	-420	-419	-642	-2318	-3895	-3948	-3397

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-3477	-4144	-4167	-4218	-3866	-3178	-1953	-1952	-2299	-3484	-3797	-3503	-3415
1977	-2372	-2763	-2801	-2777	-1804	-1883	-2000	-2000	-1597	-2088	-2003	-1854	-2532
1978	-1858	-2107	-4008	-3576	-1804	-653	225	225	-851	-2502	-3250	-4313	-3916
1979	-3542	-3921	-3963	-3696	-2416	-2915	-1533	-1533	-1493	-3657	-4463	-4310	-3220
1980	-3710	-4158	-4074	-1990	924	5	-1474	-1474	-1388	-2520	-3638	-4154	-3901
1981	-3399	-3784	-4189	-3461	-3099	-3353	-2122	-2121	-2216	-3319	-4704	-4512	-3659
1982	3226	-4119	-3980	-2896	-1473	-1144	2859	2859	318	-2626	-4022	-3688	-3075
1983	-2663	-2429	-434	2563	5598	7026	1407	1407	1202	3751	-1287	-3865	-2944
1984	-2108	22	1735	-8	-1424	-2620	-1856	-1853	-1955	-3581	-4450	-4266	-3670
1985	-3925	-4012	-4083	-4141	-3719	-2964	-1937	-1933	-2398	-3272	-4678	-4494	-3555
1986	-3208	3334	-4184	-4029	1369	1331	-826	-826	-1106	-2172	-3483	-4287	-3887
1987	-3619	-3435	-3971	-3479	-3225	-3054	-2069	-2067	-2202	-3656	-4676	-4510	-2527
1988	-2637	-2120	-4273	-4191	-2202	-2337	-1915	-1915	-2158	-2907	-3143	-1915	-2519
1989	-1991	-3050	-3172	-3624	-1901	-4110	-2544	-2543	-2253	-3355	-4750	-3886	-3598
1990	-3519	3204	-3543	-4268	-3305	-2838	-1978	-1978	-1771	-3497	-2492	-1985	-2582
1991	2331	-2352	-2200	-2151	-1444	-4020	-2009	-2008	-1957	-2575	-2281	-2538	-2533
Avg	-2974	-3057	-3207	-2871	-1487	-1669	-1233	-1232	-1508	-2591	-3570	-3630	-3221

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2470	1461	1608	1436	1634	1397	1147	1147	783	381	345	610	929
1977	1745	1460	1121	929	774	809	831	831	886	93	215	290	699
1978	733	872	1254	2494	3840	5417	7374	7374	5868	3833	1696	1246	1895
1979	2633	1742	1628	2887	4111	4233	3100	3100	3087	1808	1090	1161	1313
1980	2003	1428	1777	5837	8658	6528	3432	3432	3683	3787	2240	1266	1800
1981	2797	1554	1502	1766	1860	1879	1575	1575	1082	635	555	699	1077
1982	1399	1392	1707	3846	6850	6763	11720	11720	8108	4966	2078	1865	3309
1983	4322	4457	8228	10222	14494	16380	9307	9307	9519	14934	6797	2124	3842
1984	3851	6302	9185	6309	4356	3444	2283	2282	2070	1395	1134	1275	1521
1985	1527	1554	1654	1576	1977	1644	1530	1530	1172	630	582	703	1093
1986	1394	1174	1386	1778	10567	10816	5190	5190	4328	4241	960	1230	1475
1987	2319	1236	1435	1350	1528	1610	1231	1231	849	371	558	672	832
1988	1153	827	1134	1170	857	824	1105	1105	868	191	33	223	615
1989	663	937	968	1033	814	1315	1421	1421	1321	247	585	579	1050
1990	1002	909	925	1150	1046	921	1345	1345	1272	209	69	204	754
1991	767	780	706	732	619	1690	1723	1723	1314	169	61	246	658
Avg	1924	1755	2264	2782	3999	4104	3395	3395	2888	2368	1187	900	1429

Department of Water Resources, Delta Modeling Section

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Victoria Canal

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2558	2859	2895	3002	2648	1842	531	530	732	1826	2358	2239	2196
1977	1198	1449	1456	1498	360	403	473	474	75	298	358	311	1221
1978	496	658	2724	2855	1205	350	286	286	301	1472	1883	2984	2751
1979	2533	2672	2681	2830	1904	2298	552	551	359	2122	3093	3024	2003
1980	2647	2862	2858	2005	-340	-301	573	573	433	1510	2448	2895	2789
1981	2464	2493	2916	2341	1927	2272	816	816	718	1639	3262	3170	2441
1982	9079	2879	2884	2628	1751	1493	-1501	-1501	302	1918	2798	2496	2330
1983	1994	1930	943	1648	-3626	4303	843	843	-731	-2030	1067	2740	2159
1984	1261	-239	-1082	-243	832	1764	648	645	574	2030	3083	2992	2486
1985	2838	2827	2884	2987	2588	1790	597	593	910	1602	3251	3165	2348
1986	2041	2020	2941	2958	-354	-125	299	299	252	1211	2096	3010	2751
1987	2595	2114	2685	2272	2066	1890	668	667	650	1981	3254	3178	1219
1988	1462	716	2998	3049	840	936	534	534	654	1263	1634	368	1227
1989	658	1689	1833	2377	549	2995	1200	1200	785	1669	3249	2493	2419
1990	2346	1861	2199	3054	2059	1467	602	601	357	1875	907	455	1295
1991	1063	914	745	772	-60	2929	658	657	476	901	653	1091	1199
Avg	1889	1857	2160	2046	941	1106	345	344	390	1330	2212	2288	2052

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1017	-945	-959	-969	-879	-654	-283	-283	-357	-689	-903	-816	-809
1977	-539	-516	-509	-510	-201	-216	-258	-258	-129	-223	-296	-228	-512
1978	-294	-286	-896	-982	-672	-536	-563	-563	-610	-824	-822	-1122	-1043
1979	-1023	-890	-892	-1004	-893	-1037	-435	-435	-412	-838	-1168	-1116	-770
1980	-991	-942	-953	-1093	-685	-471	-475	-475	-492	-848	-1015	-1082	-1041
1981	-1001	-833	-960	-781	-670	-779	-377	-377	-357	-650	-1210	-1153	-895
1982	-786	-965	-1016	-1073	-1190	-1038	-897	-897	-701	-1073	-1124	-980	-1049
1983	-970	-950	-1059	-476	-689	-1001	-658	-658	-782	-1215	-1045	-1095	-1004
1984	-713	-553	-651	-484	-612	-804	-387	-386	-380	-793	-1177	-1117	-933
1985	-1041	-956	-963	-958	-876	-628	-314	-312	-420	-634	-1203	-1148	-864
1986	-775	-674	-961	-962	-1297	-1057	-528	-527	-487	-797	-852	-1124	-1011
1987	-999	-713	-887	-741	-688	-656	-323	-323	-328	-746	-1211	-1153	-517
1988	-591	-297	-976	-974	-336	-370	-265	-265	-308	-498	-676	-247	-501
1989	-336	-579	-619	-758	-241	-989	-492	-492	-387	-648	-1234	-941	-880
1990	-856	-639	-728	-977	-674	-525	-303	-303	-221	-697	-464	-274	-534
1991	-471	-358	-308	-300	-71	-967	-347	-347	-285	-389	-387	-468	-506
Avg	-775	-694	-834	-815	-667	-733	-432	-432	-416	-723	-924	-879	-804

Table 1-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1A

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1273	-892	-910	-960	-786	-355	375	376	267	-318	-920	-808	-805
1977	-280	-58	-42	-90	497	498	417	417	658	556	282	387	-202
1978	202	386	-801	-1267	-605	-384	-356	-356	-299	-613	-803	-1400	-1249
1979	-1211	-781	-774	-1097	-1006	-1190	27	27	111	-631	-1475	-1386	-711
1980	-1148	-872	-914	-1506	-835	-141	-54	-54	-85	-714	-1182	-1337	-1261
1981	-1153	-675	-916	-662	-425	-709	156	156	229	-270	-1546	-1459	-965
1982	-261	-981	-1218	-1546	-1789	-1555	-1308	-1308	-616	-1163	-1400	-1133	-1333
1983	-972	-1089	-1492	-511	-701	-978	-693	-692	-901	-1118	-1272	-1401	-1070
1984	-484	-489	-950	-260	-439	-714	130	132	169	-571	-1506	-1399	-1034
1985	-1286	-994	-965	-966	-812	-364	286	288	108	-243	-1538	-1453	-907
1986	-739	-381	-938	-1029	-2393	-1518	-205	-205	-79	-606	-888	-1419	-1209
1987	-1164	-453	-774	-552	-481	-452	286	287	301	-448	-1535	-1457	-213
1988	-369	347	-960	-1045	241	197	394	394	325	7	-454	354	-178
1989	112	-190	-268	-568	400	-1141	-61	-61	166	-279	-1570	-1051	-946
1990	-907	-303	-470	-995	-451	-118	321	322	479	-365	-52	296	-241
1991	-155	242	339	322	732	-1073	231	231	374	216	98	-96	-192
Avg	-724	-449	-753	-796	-553	-625	-3	-3	75	-410	-985	-923	-782

Department of Water Resources, Delta Modeling Section

Figure 1-3
Output Locations for Monthly Average Electrical Conductivity

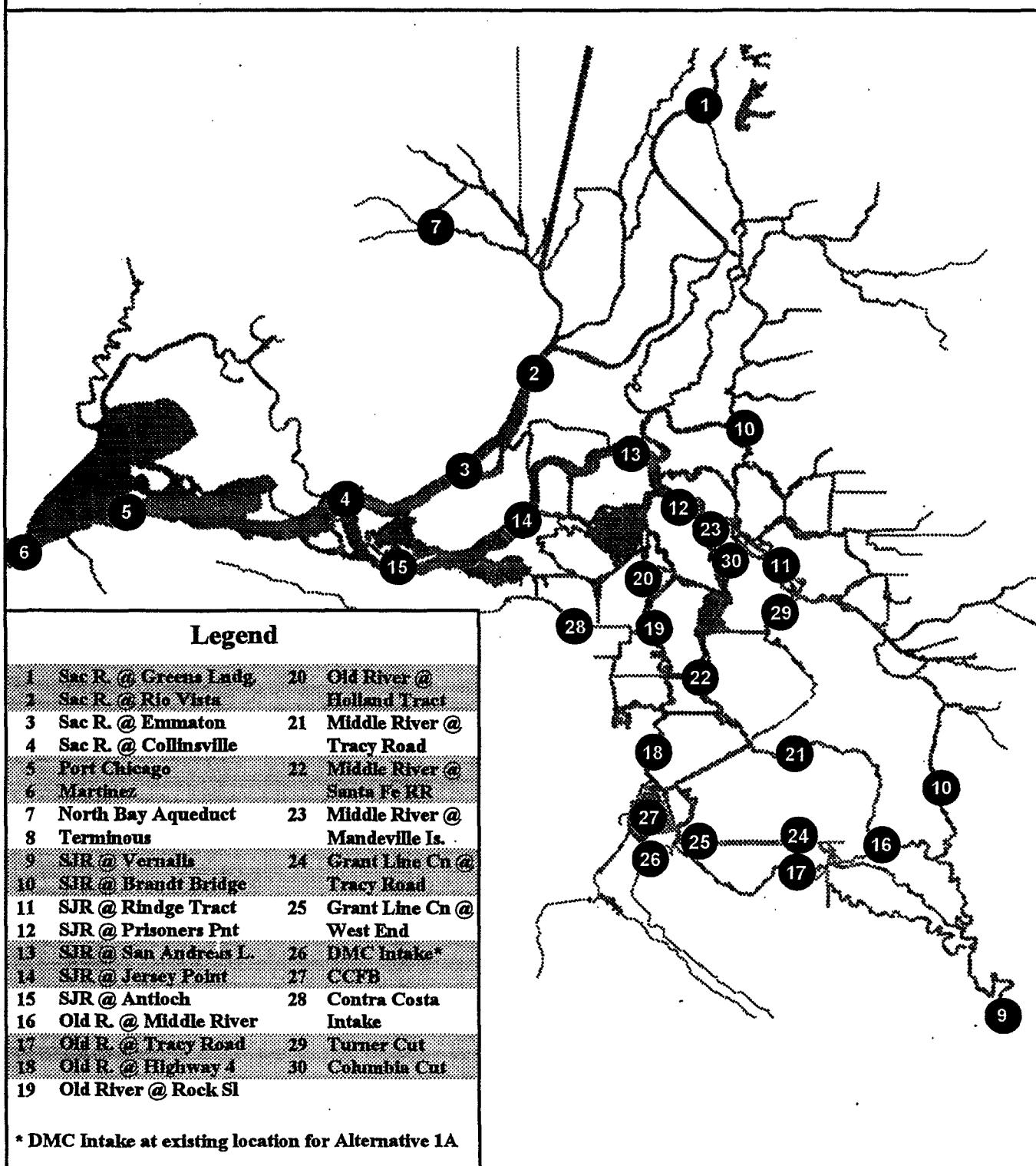


Table 1-4
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1A

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	150	150	150	151	150	150	151	151	151	152	152	151
1977	151	150	150	151	151	151	151	151	152	153	154	151
1978	151	150	152	152	151	151	150	151	152	152	151	151
1979	150	150	150	153	152	150	151	152	151	151	151	151
1980	150	150	151	151	151	150	151	151	152	151	151	150
1981	150	150	150	152	151	151	151	151	151	151	150	150
1982	150	151	151	153	150	152	150	150	150	150	151	150
1983	150	152	151	153	152	151	150	150	150	150	151	150
1984	150	151	151	151	150	150	150	151	151	151	151	151
1985	150	153	151	151	150	150	150	151	151	151	151	151
1986	151	153	152	151	151	150	150	151	151	151	151	151
1987	151	150	150	151	150	150	151	151	151	151	151	152
1988	151	151	151	151	150	151	151	151	152	152	153	152
1989	151	150	150	151	151	150	151	151	152	151	151	150
1990	150	150	150	151	151	151	151	152	152	152	151	151
1991	150	150	150	152	151	152	151	152	151	151	151	151
Avg	150	151	151	152	151	151	151	151	151	151	151	151

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	155	154	157	157	152	153	159	168	163	196	244	294
1977	270	224	263	245	166	177	173	178	174	239	382	385
1978	312	249	178	158	155	156	154	156	162	167	169	198
1979	188	170	178	162	163	156	156	160	159	163	174	249
1980	212	158	155	155	156	153	156	158	158	158	165	194
1981	212	184	163	159	156	156	156	159	161	171	190	258
1982	261	155	153	161	153	160	152	153	153	155	164	155
1983	152	157	154	160	157	154	152	152	151	154	155	153
1984	153	152	155	153	153	152	153	154	154	158	165	212
1985	171	159	158	159	155	155	155	154	160	173	194	269
1986	267	210	167	159	153	151	154	155	159	163	168	195
1987	209	192	183	158	153	153	155	166	161	176	197	361
1988	310	267	159	156	156	158	163	171	170	210	380	379
1989	296	219	263	206	174	154	154	159	167	177	209	240
1990	235	208	196	157	161	160	162	178	166	232	350	365
1991	265	245	315	284	178	162	160	165	167	215	275	352
Avg	229	194	187	174	159	157	157	162	162	182	224	266

Department of Water Resources, Delta Modeling Section

Table 1-4
(cont.)
Monthly Average Electrical Conductivity
(Values in micro Siemens per centimeter)

Alternative 1A

Sacramento River @ Emmaton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	214	359	720	739	432	265	426	779	646	1112	2122	2897
1977	2656	2345	2952	2606	858	844	998	1003	722	1394	2797	3460
1978	2645	2143	1264	223	159	162	165	172	188	268	658	1452
1979	1527	1294	1562	436	179	160	163	195	203	337	906	2175
1980	1923	812	323	161	159	158	165	175	184	254	684	1424
1981	2035	1691	1208	379	180	161	167	293	510	784	1382	2442
1982	2564	340	156	164	156	163	154	155	158	205	616	281
1983	155	159	158	166	158	154	153	153	153	157	177	158
1984	157	156	157	156	157	154	158	178	202	287	581	1603
1985	997	223	173	261	281	209	223	235	426	769	1380	2473
1986	2571	1737	904	313	156	152	158	169	193	272	567	1261
1987	1868	1801	1716	810	254	166	200	666	558	712	1369	2980
1988	3274	2944	1072	329	219	371	589	849	697	1194	2808	3436
1989	2860	2266	2975	2238	966	191	161	209	440	772	1529	2216
1990	2477	2114	1912	675	317	331	372	840	658	1409	2778	3424
1991	2681	2623	3496	2986	926	200	183	466	686	1415	2487	3358
Avg	1913	1438	1297	790	347	240	277	409	414	709	1428	2190

Sacramento River @ Collinsville

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	743	1911	3369	3263	1625	934	1967	3684	2660	3857	6228	7723
1977	7635	7882	9022	8269	3322	3321	4264	4063	2876	3989	6590	8085
1978	6387	5912	4649	468	169	172	187	189	327	889	2750	4897
1979	5843	5589	6047	1242	218	168	188	455	530	1351	3529	6127
1980	5996	3128	850	179	164	169	177	204	335	920	2836	4826
1981	6923	6709	4881	1041	226	173	271	1363	2200	3130	4876	6879
1982	7014	881	161	169	163	171	158	159	169	622	2446	938
1983	174	163	166	180	159	154	154	157	158	161	379	206
1984	164	164	160	163	164	158	182	375	615	1105	2434	5107
1985	4378	488	278	1146	1047	606	871	1079	1866	3067	4852	6869
1986	7028	5764	3368	744	159	154	164	198	407	1008	2424	4394
1987	6696	6902	6495	3045	631	200	683	3046	2327	2779	4824	7202
1988	8854	8622	4590	835	641	1878	2820	3856	2849	3885	6650	8039
1989	7752	7847	9154	7659	3390	306	184	734	1874	3050	5047	6492
1990	7999	7586	6919	2454	1085	1534	1757	3456	2776	4082	6656	8072
1991	7698	8149	9532	8670	3496	357	385	2118	2824	4157	6520	8009
Avg	5705	4856	4353	2470	1039	653	901	1571	1550	2378	4315	5867

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1A

Port Chicago

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	10513	13532	15895	15937	12557	10851	13267	15886	15377	17493	19653	20705
1977	19752	20069	20734	20096	14623	15338	16325	16329	15493	17443	19757	20837
1978	19056	19285	18340	2484	768	551	1267	3223	7040	11148	15926	18459
1979	18605	18610	19029	9404	2849	2721	4603	8007	9512	13087	17049	19565
1980	19375	16589	10516	473	170	619	3133	5189	7980	11598	15941	18371
1981	19549	19548	17890	9414	5327	4277	6565	11380	14548	16646	18806	20236
1982	19952	7132	502	354	166	208	164	948	3751	8853	14797	10173
1983	5185	2094	335	187	172	158	154	604	319	2396	6982	5260
1984	4403	450	170	371	1630	2314	4774	8303	10424	12526	15493	18733
1985	17121	6170	6630	10987	10920	9421	10559	11310	14113	16505	18721	20198
1986	19971	19161	16445	9402	345	160	2510	5172	8334	11883	15440	18002
1987	19375	19555	19376	14923	8339	5192	9125	14465	14721	16141	18647	20280
1988	20768	20212	17155	8904	9498	12956	14631	16151	15467	17381	19815	20775
1989	19824	20092	20842	19980	14562	4239	4651	9152	13645	16446	18731	19829
1990	20352	19914	19566	13800	11320	12464	12826	15590	15417	17515	19789	20840
1991	19801	20148	20809	20146	14751	6141	7704	12882	15297	17660	19877	20811
Avg	17100	15160	14015	9804	6750	5476	7016	9662	11340	14045	17214	18317

Martinez

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	16670	19219	21256	21455	18372	16837	18781	21145	21633	23619	25380	26188
1977	24545	24977	25460	24798	19786	20783	21357	21569	21590	23553	25355	26175
1978	24563	25030	24182	6054	2704	2316	3480	7051	12465	17587	22131	24374
1979	23686	23796	24145	15004	6777	6175	9090	13238	15988	19633	23100	25330
1980	25002	22836	17423	2679	577	2216	6799	10264	14252	18155	22118	24211
1981	24612	24524	23082	15263	10712	9063	11748	16661	20757	22978	24732	25862
1982	25485	12708	2719	1748	1337	1544	737	2781	7807	14186	20785	16779
1983	10968	5611	1989	968	306	146	1674	3934	2237	5404	11801	10917
1984	9581	2577	453	1740	4540	5629	9546	14382	17105	19217	21835	24654
1985	22294	11486	11998	16370	16691	15414	16330	17039	20434	22766	24674	25822
1986	25519	24871	22673	16155	802	291	5769	10099	14390	18508	21771	23940
1987	24449	24498	24430	20315	14352	10556	14371	19610	20948	22635	24522	25801
1988	25525	24891	22117	14765	15310	18344	19991	21423	21652	23591	25418	26135
1989	24559	24986	25495	24761	19754	8827	9331	14227	19717	22726	24722	25388
1990	25262	24739	24512	19279	17276	18152	18434	20942	21586	23657	25374	26168
1991	24561	25028	25468	24771	19804	11625	13115	18060	21275	23782	25506	26111
Avg	22330	20111	18588	14133	10569	9245	11285	14527	17115	20125	23077	23991

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1A

North Bay Aqueduct

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	197	185	176	171	171	172	176	187	202	217	226	222
1977	210	191	176	171	178	188	199	221	240	278	319	331
1978	307	270	236	226	282	287	325	270	240	237	224	199
1979	183	172	168	200	271	318	277	241	239	226	204	188
1980	176	169	178	218	311	399	305	269	230	203	189	179
1981	176	176	175	196	239	225	236	228	205	191	182	179
1982	176	184	202	290	440	370	517	406	252	196	186	184
1983	180	206	251	310	502	586	559	329	224	190	189	190
1984	188	198	248	368	261	226	215	186	184	189	196	202
1985	199	241	277	251	228	201	217	208	194	199	205	208
1986	207	206	211	225	241	286	275	223	206	211	222	223
1987	213	198	182	177	181	186	195	202	210	223	238	233
1988	216	195	184	184	205	219	229	234	248	281	298	281
1989	246	216	194	184	188	198	216	216	231	237	221	194
1990	178	170	169	173	195	226	253	255	256	251	225	208
1991	194	186	181	179	188	204	262	305	271	235	217	205
Avg	203	198	201	220	255	268	279	249	227	223	221	214

Terminus

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	158	168	166	169	165	165	176	197	210	186	176	172
1977	169	176	193	201	193	194	203	222	238	230	214	174
1978	162	176	175	175	169	186	174	205	237	194	168	157
1979	155	162	175	186	191	172	183	220	217	178	160	159
1980	154	163	167	175	171	158	180	180	192	162	155	152
1981	155	167	173	185	198	193	196	200	188	164	157	157
1982	157	164	173	190	156	177	140	142	157	158	156	152
1983	160	176	160	191	168	156	146	139	146	159	156	153
1984	169	154	171	158	151	145	148	156	173	166	162	164
1985	158	196	214	200	167	164	161	170	187	172	166	167
1986	168	187	191	186	152	147	148	157	194	178	170	162
1987	164	176	172	174	171	170	176	195	204	181	173	179
1988	166	177	177	182	183	181	194	206	222	206	207	174
1989	161	168	182	193	204	174	184	212	230	184	166	157
1990	155	169	185	186	210	205	210	245	219	192	174	161
1991	157	176	212	245	252	217	214	220	200	178	164	160
Avg	161	172	180	187	181	175	177	192	201	181	170	163

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1A

SJR @ Vernalis

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	593	625	726	735	747	696	644	639	863	1142	1180	1024
1977	754	646	751	856	923	874	719	618	879	1059	1045	1038
1978	949	893	860	683	436	308	239	233	288	453	639	653
1979	532	564	676	568	395	330	344	364	452	626	704	699
1980	638	679	718	454	222	211	290	336	325	411	597	658
1981	529	572	721	690	640	627	589	589	651	842	1007	932
1982	766	747	746	517	290	234	191	178	240	385	477	416
1983	330	295	242	182	152	131	154	181	155	177	317	367
1984	321	273	205	200	264	332	400	440	506	637	701	684
1985	679	720	719	715	686	644	593	553	633	844	1000	921
1986	749	754	819	738	425	167	216	282	299	518	713	704
1987	608	648	760	752	750	692	623	622	863	1082	1070	952
1988	772	786	906	926	935	896	731	620	868	1109	1123	1070
1989	980	942	921	923	941	868	664	514	784	983	998	982
1990	910	927	947	946	929	883	676	483	693	1007	1142	1025
1991	923	936	954	966	991	831	577	507	778	1069	1138	1044
Avg	690	688	729	678	608	545	478	447	580	772	866	823

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	604	557	660	601	708	703	651	644	719	631	587	637
1977	766	639	737	833	916	883	740	624	783	1076	1046	1054
1978	958	896	853	699	441	311	240	235	292	453	653	662
1979	538	538	666	578	399	331	345	368	457	641	524	673
1980	646	615	716	462	224	211	290	339	328	409	537	657
1981	536	522	590	693	646	635	598	594	662	508	351	426
1982	754	734	758	528	293	236	192	179	240	380	482	419
1983	331	297	244	187	153	133	153	182	156	177	313	369
1984	322	275	206	200	263	332	399	442	502	577	524	675
1985	689	781	811	877	703	645	600	555	624	505	404	558
1986	758	731	845	775	432	167	215	284	301	475	650	713
1987	620	591	679	732	752	702	630	626	703	560	470	911
1988	795	765	775	637	900	904	752	629	765	750	1062	1088
1989	985	944	920	860	931	924	695	529	688	561	472	482
1990	488	725	614	583	814	897	704	493	631	700	1020	1044
1991	920	931	950	964	987	904	591	515	647	777	771	1022
Avg	669	659	689	638	598	557	487	452	531	574	617	712

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1A

SJR @ Rindle Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	223	204	451	600	508	317	343	330	402	350	307	360
1977	393	460	804	1018	898	679	549	549	425	360	378	397
1978	441	517	641	450	469	344	255	245	310	287	211	236
1979	299	470	960	665	439	350	353	390	316	237	218	270
1980	282	527	478	483	248	216	287	358	353	248	187	215
1981	335	551	986	628	339	281	399	371	283	285	288	338
1982	329	347	216	523	327	279	202	182	243	204	185	344
1983	341	322	265	212	167	145	156	186	161	180	188	351
1984	333	294	228	209	265	313	349	386	241	205	203	237
1985	245	264	244	230	270	265	388	334	245	275	299	351
1986	346	518	741	449	449	178	212	289	317	253	213	229
1987	269	516	970	873	420	261	329	322	382	323	310	381
1988	371	510	737	538	312	283	422	428	373	359	355	401
1989	396	450	946	1233	1107	372	263	355	281	306	295	301
1990	306	601	1028	886	444	296	422	511	413	404	327	357
1991	339	411	711	915	896	434	508	460	317	301	280	329
Avg	328	435	650	620	472	313	340	356	316	286	265	319

SJR @ Prisoners Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	175	258	691	863	642	320	230	260	513	426	506	680
1977	530	657	1176	1290	804	410	344	340	334	325	431	627
1978	526	524	971	427	254	306	266	237	238	210	235	388
1979	386	844	1421	804	284	208	225	263	233	217	296	465
1980	512	835	555	316	262	219	219	259	230	183	211	343
1981	400	995	1426	706	254	188	190	198	318	392	503	656
1982	619	503	198	231	262	259	211	178	183	169	188	180
1983	183	212	251	246	193	165	159	185	167	170	165	174
1984	202	263	240	210	209	180	180	189	194	200	232	359
1985	381	309	206	231	310	227	192	189	263	367	498	652
1986	616	855	1045	524	377	188	186	233	231	195	219	326
1987	409	909	1471	1087	404	202	180	210	488	394	496	632
1988	594	712	1120	662	248	201	228	271	409	373	440	621
1989	515	725	1457	1764	1061	305	184	192	280	390	458	556
1990	578	1042	1437	1166	434	266	246	265	470	415	417	596
1991	502	598	973	1050	699	290	214	223	287	312	385	566
Avg	446	640	915	724	419	246	216	231	302	296	355	489

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1A

SJR @ San Andreas Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	181	306	813	980	699	334	238	293	598	516	699	959
1977	730	854	1440	1515	852	407	373	355	351	373	593	895
1978	722	660	1151	453	195	229	223	215	220	207	283	527
1979	520	1052	1637	880	252	186	189	217	233	236	380	652
1980	704	974	581	223	212	191	193	210	206	184	254	468
1981	560	1252	1612	751	252	183	180	193	370	490	677	912
1982	863	573	196	199	187	202	176	162	172	171	214	186
1983	165	178	194	217	182	160	153	163	163	162	165	166
1984	174	197	199	182	176	166	166	175	202	216	276	489
1985	495	341	205	254	344	236	188	189	299	461	667	905
1986	856	1060	1178	558	243	167	169	196	204	194	255	430
1987	564	1152	1716	1192	421	202	175	228	569	474	664	890
1988	839	927	1309	699	246	208	242	300	473	444	612	885
1989	709	941	1769	2038	1128	311	181	186	316	487	612	774
1990	807	1303	1666	1269	446	281	252	266	549	491	588	862
1991	693	783	1218	1240	716	287	200	212	327	378	540	824
Avg	599	785	1055	791	409	234	206	223	328	343	467	677

SJR @ Jersey Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	255	730	1811	1996	1274	530	367	683	1352	1265	1928	2547
1977	1689	2217	3314	3250	1358	633	759	626	659	693	1229	1981
1978	1475	1343	2550	740	204	229	232	212	223	260	772	1544
1979	1515	2643	3459	1583	288	190	186	216	319	461	1113	1752
1980	1983	2046	914	243	225	202	194	207	214	248	698	1416
1981	1648	3157	3233	1268	299	189	184	266	854	1327	1971	2459
1982	2212	1109	218	206	199	209	187	167	174	209	492	307
1983	167	179	201	236	195	168	158	168	168	164	181	178
1984	173	203	208	191	183	170	168	182	299	405	717	1415
1985	1458	615	233	483	638	330	225	274	659	1268	1928	2399
1986	2190	2494	2306	893	264	185	173	191	208	259	649	1251
1987	1714	2947	3698	2241	646	228	197	473	1273	1170	1922	2030
1988	1998	2039	2851	1125	287	350	445	660	1087	1004	1328	1963
1989	1518	2488	4025	4288	1767	437	188	215	678	1310	1704	2151
1990	2340	3208	3618	2302	682	491	396	456	1268	972	1287	1971
1991	1577	1928	2623	2448	1055	378	211	316	758	801	1320	1945
Avg	1495	1834	2204	1468	598	307	267	332	637	739	1202	1707

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1A

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	590	1710	3244	3255	1775	904	1369	2741	2588	3204	5117	6396
1977	5519	6422	7772	7245	2974	2300	3089	2748	2230	2666	4474	6037
1978	4530	4412	4505	931	199	213	220	205	297	658	2252	4085
1979	4645	5231	5842	1787	291	184	188	343	518	1140	2970	4891
1980	5077	3218	1017	243	220	196	189	208	295	683	2250	3973
1981	5340	6265	4933	1428	284	185	240	960	1985	2814	4330	5824
1982	5735	1266	206	199	197	203	188	166	174	481	1827	782
1983	176	173	196	238	200	173	159	167	169	164	305	212
1984	170	195	207	186	178	167	178	296	572	949	2007	4095
1985	3774	707	281	1039	1066	572	619	835	1635	2746	4292	5772
1986	5724	5218	3426	956	268	188	170	195	327	737	1959	3574
1987	5303	6285	6287	3268	768	232	491	2152	2321	2471	4266	5547
1988	6531	6573	4659	1118	516	1358	1958	2805	2572	2999	4612	5987
1989	5325	6595	8237	7379	3245	433	192	544	1646	2758	4245	5441
1990	6492	6877	6546	2833	1064	1268	1303	2258	2621	2967	4598	6056
1991	5464	6317	7515	6865	2760	424	321	1408	2319	2909	4723	6002
Avg	4400	4217	4055	2436	1000	563	680	1127	1392	1897	3389	4667

Old River @ Middle River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	599	613	728	727	748	698	648	641	816	986	1111	1022
1977	765	643	746	848	919	879	730	621	819	1075	1043	1044
1978	954	894	848	691	440	311	240	235	292	455	635	657
1979	536	557	675	575	398	331	346	368	456	624	689	699
1980	641	663	722	460	224	211	290	339	329	411	585	661
1981	533	562	718	695	643	630	595	592	652	735	846	917
1982	773	728	751	525	293	237	192	179	240	383	479	418
1983	331	297	244	187	153	133	154	182	156	178	316	369
1984	322	275	206	201	264	332	400	442	505	629	695	687
1985	680	721	724	717	690	644	597	555	630	744	859	918
1986	758	746	825	743	430	168	216	284	301	507	713	708
1987	615	636	767	754	751	696	627	624	811	950	933	960
1988	781	774	882	891	931	900	743	624	819	1002	1116	1078
1989	983	942	920	926	940	871	676	523	730	891	906	958
1990	886	921	934	930	927	889	693	489	660	929	1124	1035
1991	921	934	952	966	988	845	586	513	717	1013	1107	1052
Avg	692	682	728	677	609	548	483	451	558	720	822	824

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1A

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	607	603	728	717	748	701	653	646	802	999	1083	1028
1977	778	641	741	839	911	883	743	629	785	1082	1049	1050
1978	958	896	860	702	454	322	243	240	303	463	642	661
1979	540	551	674	587	409	336	350	378	467	633	690	699
1980	645	658	725	476	246	215	294	347	337	414	584	663
1981	538	553	712	705	652	639	604	600	655	699	786	904
1982	779	738	757	557	302	254	195	181	244	384	483	422
1983	334	317	252	255	175	168	155	184	158	180	318	373
1984	325	281	224	208	269	335	402	446	506	629	697	692
1985	682	730	733	728	696	646	603	558	630	711	806	916
1986	769	744	827	750	448	172	216	287	308	505	724	714
1987	623	629	760	751	752	700	632	630	797	892	881	959
1988	791	764	884	878	923	902	756	633	806	1012	1100	1083
1989	985	943	920	913	934	886	691	538	726	867	860	951
1990	884	918	929	897	926	896	712	501	659	896	1090	1040
1991	920	931	949	964	985	860	599	524	690	961	1084	1054
Avg	697	681	730	683	614	557	491	458	555	708	805	826

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	226	257	717	978	803	422	319	326	535	565	593	798
1977	746	665	1180	1448	1186	734	504	528	498	476	501	686
1978	722	590	1006	678	353	405	261	296	301	280	273	451
1979	507	818	1542	1108	415	281	300	369	304	266	338	530
1980	635	886	717	413	272	223	288	344	312	235	239	400
1981	503	965	1627	1008	379	249	272	292	335	479	594	780
1982	778	629	254	340	354	348	203	187	218	202	215	241
1983	230	267	357	239	176	161	162	187	162	193	192	217
1984	255	290	223	217	277	236	248	275	235	236	268	408
1985	499	386	250	251	361	292	273	264	282	443	594	781
1986	781	883	1197	708	494	198	230	290	294	251	256	385
1987	507	894	1594	1411	600	278	250	278	506	515	594	742
1988	739	731	1216	892	368	270	310	355	458	500	498	687
1989	703	710	1466	1965	1616	503	241	275	316	480	554	665
1990	713	1027	1570	1454	621	346	343	394	503	585	473	648
1991	672	586	924	1152	1042	467	320	345	347	399	428	610
Avg	576	662	990	891	582	338	283	313	350	382	413	564

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1A

Old River @ Rock Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	205	274	811	1070	841	414	284	304	589	587	667	916
1977	811	756	1374	1608	1212	619	454	444	430	423	518	785
1978	785	621	1137	656	292	382	319	287	267	247	282	509
1979	547	964	1721	1142	370	247	253	307	274	258	373	610
1980	714	1001	730	369	339	261	256	294	274	212	249	453
1981	550	1145	1786	1011	332	212	218	236	350	528	685	896
1982	880	674	238	279	303	289	223	201	202	186	214	225
1983	206	238	305	299	193	169	175	200	171	176	179	195
1984	225	304	258	246	244	209	208	223	217	234	282	458
1985	550	395	233	251	373	273	227	223	287	488	676	889
1986	875	1016	1304	713	509	267	223	256	262	237	260	424
1987	558	1058	1788	1480	573	245	206	240	555	542	672	850
1988	825	848	1364	911	326	236	270	325	480	505	542	789
1989	770	827	1704	2181	1650	451	210	220	311	521	620	760
1990	813	1221	1752	1540	594	327	303	323	539	586	520	756
1991	744	679	1099	1285	1054	407	255	274	337	405	480	721
Avg	629	751	1100	940	575	313	255	272	347	383	451	640

Old River @ Holland Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	202	293	863	1114	855	409	274	307	620	600	712	978
1977	824	812	1454	1662	1167	567	442	421	411	411	543	829
1978	797	645	1210	642	278	340	324	264	255	236	293	547
1979	577	1053	1808	1146	353	233	239	283	265	258	396	651
1980	760	1060	732	351	341	267	239	275	260	205	260	487
1981	586	1250	1857	1003	319	204	206	224	366	553	734	958
1982	927	694	232	257	286	273	234	195	195	181	219	221
1983	197	226	276	314	210	181	175	200	176	172	175	188
1984	216	289	272	244	230	200	198	211	214	235	292	490
1985	578	402	228	257	382	270	216	215	297	512	723	948
1986	919	1083	1353	712	459	274	205	238	250	218	267	451
1987	696	1148	1885	1498	580	237	196	237	586	556	718	889
1988	858	899	1441	912	311	230	265	324	495	507	572	831
1989	783	894	1810	2277	1587	430	202	208	318	544	659	812
1990	866	1313	1835	1569	582	324	292	307	565	582	549	802
1991	760	728	1172	1324	1000	384	240	257	342	409	507	767
Avg	653	799	1152	955	558	301	247	260	351	386	476	678

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1A

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	345	238	491	724	650	398	356	351	424	468	398	496
1977	575	514	815	1075	1033	770	541	545	513	483	470	515
1978	570	534	711	711	487	366	255	261	371	337	250	306
1979	412	506	1086	849	462	371	371	427	353	268	255	342
1980	406	591	622	494	264	227	313	380	389	284	215	268
1981	425	588	1179	918	524	436	502	371	310	355	377	470
1982	485	456	273	596	335	317	203	189	260	233	218	366
1983	838	337	264	264	177	160	160	189	164	196	217	354
1984	337	293	230	231	294	337	365	382	269	229	230	287
1985	339	320	275	272	339	348	411	328	275	332	386	485
1986	507	580	891	648	450	187	223	303	346	286	241	282
1987	372	557	1108	1117	610	355	317	322	402	422	397	508
1988	525	544	846	759	394	311	438	415	412	443	430	497
1989	537	499	986	1406	1322	547	299	352	320	373	382	410
1990	433	628	1132	1142	603	357	435	529	435	521	403	448
1991	485	442	690	928	991	599	511	455	356	361	335	410
Avg	443	477	725	758	558	380	356	362	350	349	325	403

Middle River @ Santa Fe Rail Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	250	225	514	728	628	372	309	327	422	439	389	493
1977	515	504	854	1101	1010	688	505	470	459	427	427	503
1978	547	511	738	575	395	435	314	292	299	298	233	304
1979	368	544	1120	846	421	320	317	367	316	246	247	340
1980	401	618	589	453	338	254	279	343	332	257	204	266
1981	364	631	1194	809	385	299	320	326	295	346	376	471
1982	473	446	244	407	365	351	221	198	227	213	205	264
1983	278	299	332	289	194	175	168	196	171	182	198	261
1984	291	320	260	256	275	264	271	296	247	214	218	281
1985	325	305	252	238	316	299	297	298	258	323	381	480
1986	488	602	895	582	495	236	226	277	305	258	223	272
1987	355	592	1143	1089	521	294	281	299	398	399	388	490
1988	504	548	873	711	343	289	328	376	390	411	395	485
1989	510	510	1041	1452	1328	470	267	314	293	359	372	408
1990	429	671	1161	1120	546	326	347	405	418	486	375	442
1991	463	446	722	943	971	491	366	373	328	336	320	406
Avg	410	486	746	725	533	348	301	322	322	325	309	385

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1A

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	178	235	625	805	622	322	240	258	474	412	443	584
1977	478	565	1049	1202	864	475	370	371	352	333	394	539
1978	488	478	873	439	324	347	286	248	263	229	225	340
1979	343	724	1306	790	340	257	274	317	248	219	270	401
1980	445	754	553	388	286	236	248	310	277	195	200	302
1981	347	852	1332	709	270	203	213	219	295	368	447	566
1982	536	474	206	290	298	280	223	184	206	176	183	196
1983	229	258	268	273	210	177	163	190	171	177	171	209
1984	249	289	255	224	238	213	214	224	199	200	221	317
1985	348	300	215	225	298	230	212	204	248	345	445	564
1986	538	750	980	522	403	200	200	263	269	209	214	294
1987	358	782	1342	1057	415	212	194	216	450	383	446	550
1988	520	620	1021	659	265	209	240	280	386	370	397	538
1989	474	620	1297	1628	1136	329	193	208	270	370	412	481
1990	601	903	1323	1129	447	271	261	300	439	417	373	509
1991	453	514	866	994	784	323	248	260	280	305	340	480
Avg	405	570	844	708	450	268	236	253	302	294	324	429

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	603	604	726	726	749	700	650	642	788	960	1089	1031
1977	773	641	742	843	915	883	740	624	732	1060	1043	1049
1978	958	896	858	697	444	315	242	235	293	453	635	659
1979	538	553	675	580	402	333	347	370	456	623	695	699
1980	644	661	725	465	228	213	290	341	330	410	583	662
1981	536	556	723	700	646	633	599	593	651	724	836	919
1982	777	735	753	533	296	243	193	179	241	381	480	420
1983	332	298	245	198	157	140	154	182	157	178	314	370
1984	323	276	207	203	266	333	399	443	503	629	699	689
1985	680	720	724	715	693	645	601	555	626	733	850	921
1986	765	742	825	747	434	169	216	284	302	497	718	710
1987	619	630	764	752	752	698	630	625	782	936	929	961
1988	788	765	884	885	927	903	752	627	767	900	1079	1084
1989	986	943	921	919	937	879	684	528	689	894	882	962
1990	891	920	934	909	927	893	704	494	628	838	1080	1042
1991	921	933	950	964	986	856	591	516	654	871	1068	1058
Avg	696	680	729	677	610	552	487	452	537	693	811	827

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1A

Grant Line Canal @ West End

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	537	485	701	780	752	625	600	538	592	697	797	878
1977	771	634	819	1040	952	862	676	621	568	662	705	842
1978	860	822	875	700	447	318	242	236	295	408	482	586
1979	527	586	871	603	405	334	347	371	419	465	534	608
1980	623	698	718	467	230	213	289	342	331	371	438	568
1981	525	624	959	768	607	566	567	533	479	562	669	813
1982	746	679	614	535	298	245	194	180	240	335	401	401
1983	329	299	246	203	159	142	155	182	157	178	282	360
1984	323	277	208	203	266	332	395	438	414	456	520	574
1985	598	609	592	574	626	577	575	495	444	550	679	817
1986	743	751	917	733	436	170	215	284	303	392	524	579
1987	588	672	975	923	719	622	571	528	560	685	717	845
1988	748	724	965	875	783	686	691	526	503	522	647	826
1989	838	830	1065	1261	1047	754	605	495	408	645	676	793
1990	771	901	1144	1088	825	722	669	492	501	610	623	807
1991	797	794	906	1007	990	760	578	503	412	447	543	776
Avg	645	649	786	735	596	496	461	423	414	499	577	692

DMC Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	389	363	671	840	757	540	575	499	532	594	663	788
1977	759	625	898	1159	950	854	651	635	576	612	635	748
1978	827	796	891	691	437	339	246	248	314	401	368	496
1979	499	644	1128	855	421	323	348	391	385	355	411	545
1980	596	743	707	467	250	215	296	357	341	315	328	463
1981	494	722	1222	867	544	437	523	506	401	476	571	743
1982	723	631	445	473	316	280	200	189	241	273	314	333
1983	298	302	261	285	206	200	159	190	168	187	243	309
1984	311	287	239	207	267	303	381	430	342	331	378	478
1985	527	493	428	410	491	468	546	449	360	451	578	753
1986	727	764	1012	714	456	182	216	293	314	361	380	470
1987	526	718	201	1071	690	500	531	494	500	548	594	781
1988	721	707	1033	869	726	572	659	480	462	499	566	721
1989	773	750	1167	1529	1061	642	499	474	352	505	571	685
1990	697	895	1290	1239	753	590	647	502	489	590	538	697
1991	734	732	888	1024	987	634	561	509	376	411	440	654
Avg	600	636	843	794	582	442	440	415	385	432	474	604

Department of Water Resources, Delta Modeling Section

Table 1-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1A

Clifton Court Forebay

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	302	258	625	885	778	455	354	353	474	558	551	697
1977	723	600	989	1319	1215	945	670	578	574	555	560	613
1978	692	618	876	714	403	350	255	248	310	332	278	417
1979	482	663	1329	1000	439	318	325	383	346	279	314	460
1980	568	764	718	457	254	215	283	352	339	283	241	374
1981	473	772	1436	1006	462	334	333	345	326	440	519	677
1982	701	596	308	421	343	300	208	181	231	232	237	298
1983	283	291	281	224	176	156	153	185	164	181	214	277
1984	296	287	220	204	269	281	298	332	266	245	267	374
1985	466	391	294	276	381	327	327	312	283	405	520	685
1986	712	761	1087	722	449	175	210	286	310	288	266	366
1987	479	725	1379	1297	653	364	302	311	440	499	525	672
1988	683	657	1060	896	436	317	341	384	423	507	522	594
1989	670	630	1229	1769	1608	599	284	319	325	445	509	586
1990	630	824	1392	1379	683	390	387	432	464	597	520	555
1991	635	542	758	1036	1089	566	380	405	391	400	412	496
Avg	550	586	874	850	602	381	319	338	354	390	403	509

Contra Costa Canal Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	235	273	781	1065	886	453	382	357	599	646	696	924
1977	846	711	1267	1570	1278	735	527	508	504	501	561	779
1978	800	627	1086	795	400	530	421	359	347	288	300	515
1979	561	902	1685	1234	446	274	342	399	318	299	387	611
1980	722	977	785	428	625	381	404	369	314	247	265	459
1981	561	1073	1778	1115	410	272	348	301	368	544	687	895
1982	893	708	281	631	392	502	377	251	223	215	234	246
1983	220	317	468	851	523	469	332	243	210	208	206	217
1984	250	369	432	324	301	248	282	269	240	265	304	471
1985	577	473	283	277	399	308	304	267	306	508	687	904
1986	905	988	1309	791	671	459	326	309	295	268	297	451
1987	578	1004	1740	1543	654	308	384	290	563	585	699	866
1988	843	815	1304	993	390	286	354	368	513	596	579	782
1989	787	783	1617	2125	1773	564	274	291	348	544	633	761
1990	816	1162	1713	1594	670	363	442	382	568	637	537	738
1991	762	654	1029	1244	1092	489	327	342	378	434	486	707
Avg	647	740	1097	1036	682	415	359	332	381	424	472	645

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Table 1-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1A

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	434	242	403	577	522	379	542	515	403	385	313	360
1977	552	567	673	880	821	831	778	709	563	478	512	501
1978	641	733	626	665	496	348	257	248	320	382	237	280
1979	487	422	845	671	450	356	360	395	400	261	222	270
1980	352	473	508	490	256	219	295	361	354	337	209	235
1981	506	482	924	697	556	500	632	573	333	291	283	329
1982	332	347	257	597	329	289	204	184	245	257	255	428
1983	348	326	265	233	180	158	158	187	163	182	229	378
1984	337	297	234	213	270	333	392	452	318	217	210	250
1985	266	286	285	261	370	448	584	513	296	278	295	349
1986	367	463	716	522	458	182	214	291	319	288	228	246
1987	423	461	875	871	536	442	565	534	384	347	310	384
1988	459	604	701	590	409	497	717	655	428	395	394	434
1989	507	476	792	1149	951	484	484	595	333	317	300	299
1990	303	466	935	916	525	389	684	645	435	456	361	378
1991	412	500	698	871	941	624	744	595	408	334	297	329
Avg	420	447	609	638	504	405	476	466	356	325	291	341

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	181	222	580	765	612	330	248	262	453	408	411	534
1977	469	524	984	1168	905	523	392	387	367	344	384	508
1978	484	466	811	443	340	364	313	257	273	243	220	311
1979	320	648	1231	781	367	286	287	332	261	223	254	369
1980	405	698	553	411	325	257	255	320	299	207	195	277
1981	322	763	1267	722	287	215	226	234	286	347	404	513
1982	496	452	212	320	313	289	235	188	216	183	182	210
1983	252	274	279	304	218	186	168	195	176	177	175	230
1984	265	301	275	240	246	228	227	240	205	201	215	295
1985	324	293	223	223	291	236	223	217	243	326	405	516
1986	501	690	935	522	438	231	205	266	283	221	212	276
1987	330	706	1259	1051	433	222	204	223	428	372	409	519
1988	496	583	953	656	280	217	248	290	377	373	382	507
1989	469	568	1209	1552	1192	356	200	219	268	352	384	439
1990	458	823	1261	1101	466	279	270	318	425	428	361	475
1991	442	480	816	974	828	358	264	281	282	306	325	447
Avg	388	531	803	702	471	286	248	264	303	294	307	402

Department of Water Resources, Delta Modeling Section

Figure 1-4
Distance Reference for X2 Tables
(values shown in kilometers from Golden Gate)

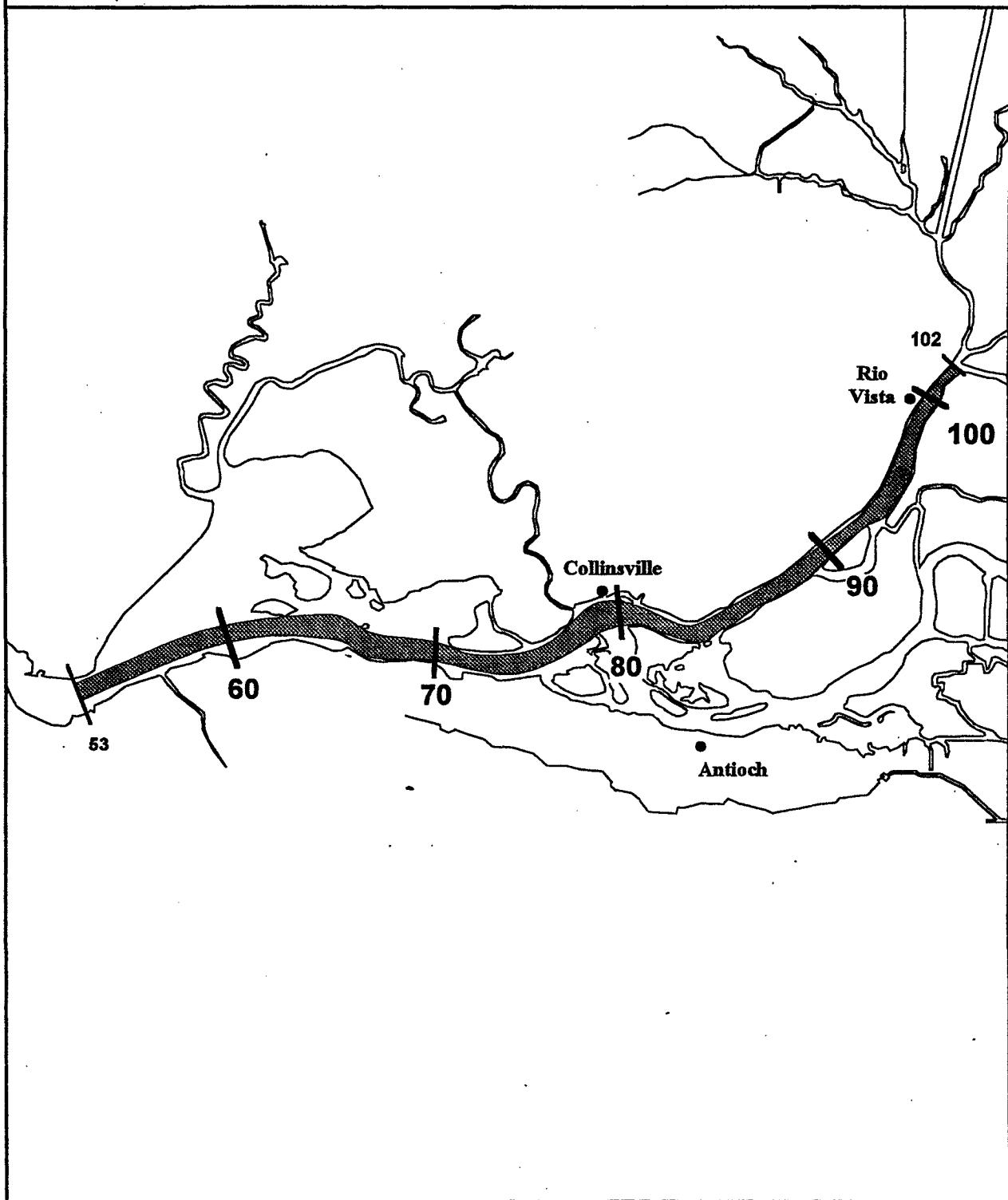


Table 1-5
Monthly Average Location of 2640 micro Siemens/cm, EC
(Values in km from Golden Gate)
(Benicia Assumed to be at 53.1 km from Golden gate)
(Hydrology from DWRSIM Study 516)

Alternative 1A

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	71.3	76.5	81.7	81.6	75.0	72.2	76.5	82.2	79.3	82.7	86.8	88.7
1977	88.2	87.5	88.7	88.0	80.1	81.0	83.6	83.3	80.2	83.4	88.6	90.1
1978	88.0	86.9	84.2	60.5	57.0	55.8	58.7	61.8	65.7	71.9	79.5	84.8
1979	85.5	84.8	85.4	69.8	61.2	61.5	62.5	67.9	69.5	74.0	81.8	86.9
1980	86.3	80.9	70.3	58.6	*	56.9	61.7	62.7	66.2	72.2	79.7	84.8
1981	86.7	85.9	84.1	69.7	62.7	62.2	64.7	73.8	77.3	81.2	84.6	87.6
1982	87.9	66.5	57.4	*	*	*	*	58.1	62.1	69.6	78.4	70.0
1983	62.5	60.5	56.7	*	*	*	56.1	57.6	56.2	61.2	66.8	62.9
1984	62.2	57.5	*	56.2	59.8	60.8	62.7	67.3	70.5	73.1	78.4	85.1
1985	83.4	64.9	64.7	72.9	72.6	70.0	72.1	73.2	76.1	81.0	84.6	87.7
1986	87.9	85.8	81.6	68.4	58.5	*	61.4	62.9	67.5	72.6	78.3	84.1
1987	86.3	86.2	85.8	79.9	67.3	62.6	70.0	80.1	77.8	79.7	84.5	89.0
1988	89.5	88.7	83.5	68.5	69.8	76.2	79.9	82.7	80.0	82.9	88.6	90.0
1989	88.6	87.3	88.8	87.1	80.5	62.9	62.5	70.5	76.0	81.0	85.0	87.1
1990	87.7	86.9	86.3	77.4	72.9	74.8	75.6	81.3	79.6	83.5	88.5	90.0
1991	88.2	88.1	89.8	88.8	80.4	64.3	66.9	77.0	80.3	83.9	87.7	87.7
Avg	83.1	79.7	**	**	**	**	**	71.4	72.8	77.1	82.6	84.8

* Values Downstream of Model Boundary - Benicia

** 16 Year Average not Reported - Contains Values Downstream of Benicia.

Department of Water Resources, Delta Modeling Section

Figure 1-5
Output Locations for Minimum Water Levels
Alternative 1A

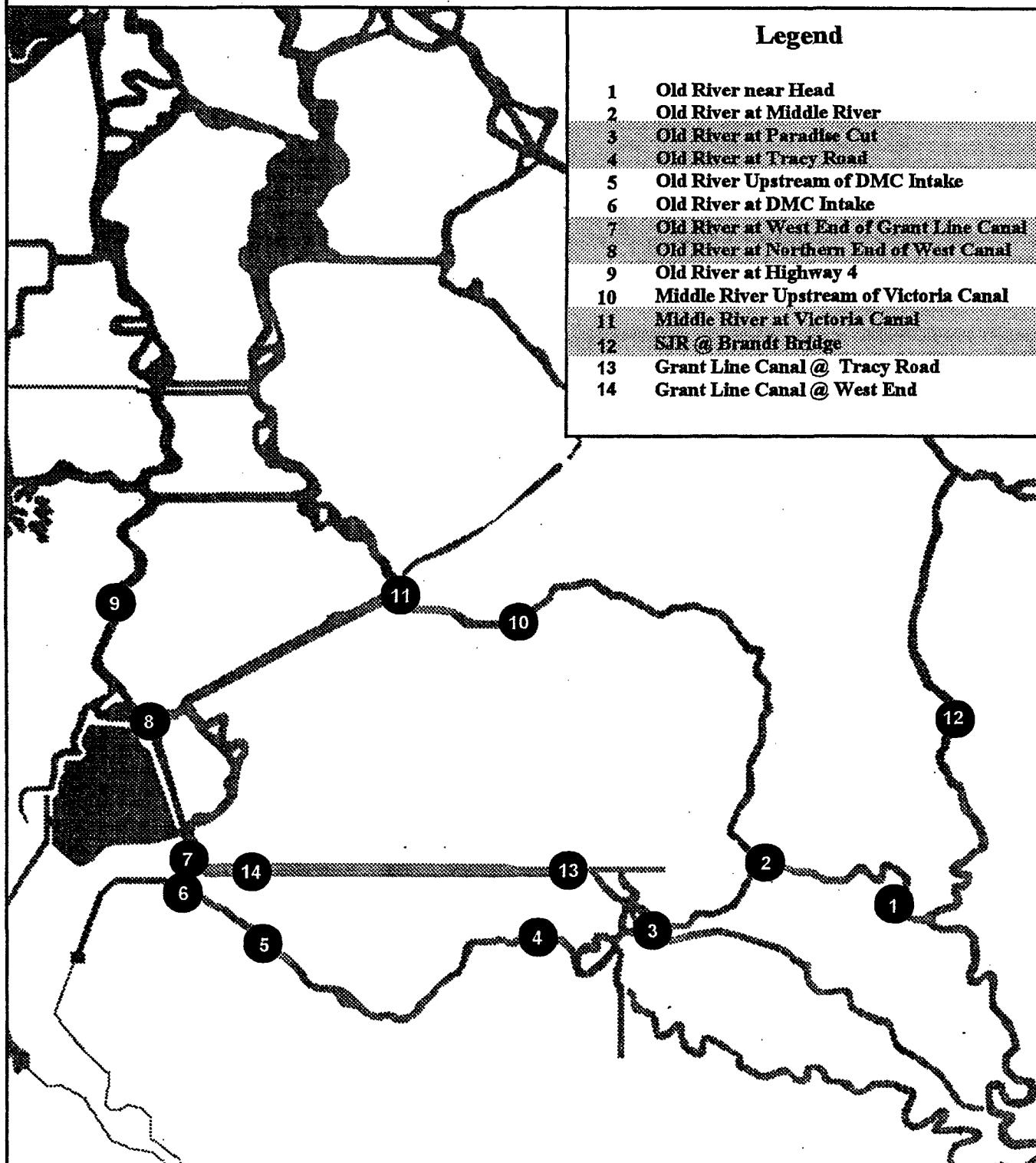


Table 1-6
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1A

Old River near Head

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.35	0.35	0.12	-0.26	-0.33	-0.22	-0.12
1977	0.19	0.19	0.29	-0.11	-0.08	-0.06	-0.06
1978	6.01	6.01	4.58	2.53	0.46	-0.07	0.31
1979	1.89	1.89	1.96	0.45	-0.14	-0.12	0.10
1980	2.23	2.23	2.53	2.48	0.69	-0.04	0.25
1981	0.55	0.55	0.29	-0.11	-0.42	-0.36	-0.08
1982	10.10	10.10	6.76	3.56	0.50	0.37	1.66
1983	7.91	7.91	8.12	12.90	5.44	0.53	2.32
1984	1.08	1.08	0.94	0.20	-0.11	-0.05	0.14
1985	0.56	0.56	0.31	-0.11	-0.41	-0.36	-0.06
1986	3.92	3.92	3.16	2.98	0.01	-0.07	0.06
1987	0.39	0.39	0.17	-0.30	-0.42	-0.37	0.02
1988	0.33	0.33	0.16	-0.26	-0.40	-0.10	-0.09
1989	0.41	0.41	0.41	-0.30	-0.41	-0.27	-0.10
1990	0.46	0.46	0.43	-0.35	-0.25	-0.13	-0.04
1991	0.66	0.66	0.45	-0.21	-0.20	-0.23	-0.07
Avg	2.32	2.32	1.92	1.44	0.25	-0.10	0.27

Old River @ Middle River

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.18	-0.18	-0.33	-0.62	-0.64	-0.55	-0.55
1977	-0.28	-0.28	-0.18	-0.43	-0.43	-0.41	-0.46
1978	3.31	3.31	2.30	0.94	-0.17	-0.56	-0.33
1979	0.68	0.69	0.70	-0.26	-0.61	-0.59	-0.43
1980	0.88	0.88	1.04	0.91	-0.11	-0.54	-0.36
1981	-0.08	-0.08	-0.24	-0.55	-0.77	-0.72	-0.54
1982	6.27	6.27	3.80	1.56	-0.24	-0.30	0.47
1983	4.67	4.67	4.76	8.17	2.82	-0.20	0.85
1984	0.21	0.21	0.12	-0.39	-0.59	-0.55	-0.42
1985	-0.07	-0.07	-0.24	-0.54	-0.76	-0.72	-0.53
1986	1.94	1.94	1.42	1.22	-0.42	-0.56	-0.45
1987	-0.17	-0.17	-0.30	-0.67	-0.77	-0.73	-0.41
1988	-0.19	-0.19	-0.32	-0.63	-0.75	-0.44	-0.50
1989	-0.18	-0.18	-0.18	-0.65	-0.77	-0.62	-0.54
1990	-0.13	-0.13	-0.12	-0.73	-0.58	-0.46	-0.47
1991	-0.02	-0.02	-0.14	-0.56	-0.53	-0.60	-0.49
Avg	1.04	1.04	0.76	0.42	-0.33	-0.53	-0.32

Department of Water Resources, Delta Modeling Section

Table 1-6 (cont.)
Minimum Water Levels
 (Values in feet above mean sea level)

Alternative 1A

Old River near Paradise Cut

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.46	-0.46	-0.56	-0.78	-0.77	-0.70	-0.77
1977	-0.53	-0.53	-0.41	-0.56	-0.58	-0.57	-0.67
1978	1.20	1.20	0.61	-0.12	-0.52	-0.82	-0.70
1979	-0.07	-0.07	-0.08	-0.66	-0.86	-0.84	-0.73
1980	0.01	0.01	0.06	-0.13	-0.59	-0.80	-0.71
1981	-0.43	-0.43	-0.51	-0.76	-0.95	-0.91	-0.78
1982	2.96	2.96	1.42	0.11	-0.68	-0.69	-0.29
1983	2.04	2.04	1.98	3.76	0.79	-0.64	-0.12
1984	-0.28	-0.28	-0.34	-0.72	-0.85	-0.81	-0.73
1985	-0.41	-0.41	-0.53	-0.75	-0.94	-0.91	-0.77
1986	0.54	0.54	0.23	0.01	-0.64	-0.82	-0.74
1987	-0.47	-0.47	-0.54	-0.83	-0.94	-0.91	-0.64
1988	-0.46	-0.46	-0.58	-0.80	-0.90	-0.59	-0.70
1989	-0.51	-0.51	-0.49	-0.80	-0.95	-0.77	-0.77
1990	-0.44	-0.44	-0.42	-0.89	-0.71	-0.60	-0.70
1991	-0.39	-0.39	-0.45	-0.71	-0.66	-0.76	-0.71
Avg	0.14	0.14	-0.04	-0.29	-0.67	-0.76	-0.66

Old River @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.57	-0.57	-0.66	-0.85	-0.86	-0.78	-0.86
1977	-0.63	-0.63	-0.50	-0.64	-0.67	-0.65	-0.76
1978	0.68	0.68	0.17	-0.43	-0.65	-0.94	-0.84
1979	-0.28	-0.28	-0.30	-0.80	-0.99	-0.96	-0.84
1980	-0.22	-0.22	-0.19	-0.43	-0.75	-0.92	-0.84
1981	-0.55	-0.55	-0.62	-0.85	-1.06	-1.02	-0.89
1982	2.16	2.16	0.81	-0.28	-0.85	-0.83	-0.51
1983	1.39	1.39	1.28	2.62	0.26	-0.79	-0.39
1984	-0.44	-0.44	-0.49	-0.84	-0.98	-0.94	-0.85
1985	-0.54	-0.54	-0.65	-0.84	-1.06	-1.01	-0.87
1986	0.18	0.18	-0.07	-0.31	-0.74	-0.95	-0.85
1987	-0.58	-0.58	-0.64	-0.91	-1.06	-1.02	-0.73
1988	-0.57	-0.57	-0.69	-0.88	-0.99	-0.67	-0.79
1989	-0.63	-0.63	-0.61	-0.87	-1.07	-0.86	-0.86
1990	-0.56	-0.56	-0.52	-0.99	-0.78	-0.68	-0.79
1991	-0.52	-0.52	-0.57	-0.79	-0.73	-0.85	-0.80
Avg	-0.11	-0.11	-0.27	-0.51	-0.81	-0.87	-0.78

Department of Water Resources, Delta Modeling Section

Table 1-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1A

Old River Upstream of DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.57	-0.57	-0.64	-0.82	-0.83	-0.76	-0.89
1977	-0.62	-0.62	-0.49	-0.57	-0.61	-0.61	-0.76
1978	0.08	0.08	-0.26	-0.68	-0.70	-0.97	-0.91
1979	-0.44	-0.44	-0.46	-0.85	-1.02	-0.99	-0.89
1980	-0.41	-0.41	-0.41	-0.68	-0.85	-0.95	-0.92
1981	-0.58	-0.58	-0.62	-0.83	-1.06	-1.02	-0.92
1982	1.24	1.24	0.15	-0.77	-0.95	-0.90	0.71
1983	0.66	0.66	0.50	1.23	-0.29	-0.88	-0.64
1984	-0.52	-0.52	-0.56	-0.87	-1.01	-0.97	-0.91
1985	-0.56	-0.56	-0.65	-0.83	-1.06	-1.02	-0.91
1986	-0.16	-0.16	-0.34	-0.60	-0.75	-0.98	0.91
1987	-0.59	-0.59	-0.63	-0.89	-1.06	-1.02	0.73
1988	-0.57	-0.57	-0.69	-0.86	-0.97	-0.63	-0.80
1989	-0.65	-0.65	-0.62	-0.84	-1.07	-0.84	-0.90
1990	-0.57	-0.57	-0.54	-0.97	-0.73	-0.64	-0.81
1991	-0.57	-0.57	-0.58	-0.75	-0.67	-0.84	-0.81
Avg	-0.30	-0.30	-0.43	-0.66	-0.85	-0.88	-0.84

Old River @ DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.57	-0.57	-0.64	-0.81	-0.81	-0.75	-0.90
1977	-0.62	-0.62	-0.49	-0.57	-0.61	-0.61	-0.76
1978	0.05	0.05	-0.28	-0.69	-0.70	-0.97	-0.92
1979	-0.46	-0.46	-0.47	-0.85	-1.00	-0.98	-0.90
1980	-0.43	-0.43	-0.42	-0.68	-0.84	-0.96	-0.92
1981	-0.59	-0.59	-0.62	-0.83	-1.04	-1.01	-0.93
1982	1.18	1.18	0.12	-0.75	-0.93	-0.91	-0.72
1983	0.62	0.62	0.45	1.15	-0.32	-0.88	-0.66
1984	-0.53	-0.53	-0.56	-0.87	-0.99	-0.96	-0.92
1985	-0.56	-0.56	-0.65	-0.82	-1.04	-1.00	-0.91
1986	-0.18	-0.18	-0.36	-0.61	-0.73	-0.96	-0.91
1987	-0.59	-0.59	-0.63	-0.88	-1.04	-1.01	-0.73
1988	-0.57	-0.57	-0.69	-0.85	-0.96	-0.63	-0.79
1989	-0.65	-0.65	-0.62	-0.82	-1.04	-0.83	-0.91
1990	-0.58	-0.58	-0.54	-0.96	-0.72	-0.63	-0.80
1991	-0.57	-0.57	-0.58	-0.75	-0.66	-0.83	-0.80
Avg	-0.32	-0.32	-0.44	-0.66	-0.84	-0.87	-0.84

Department of Water Resources, Delta Modeling Section

Table 1-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1A

Old River @ West End of Grant Line Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.56	-0.56	-0.62	-0.79	-0.79	-0.73	-0.86
1977	-0.60	-0.60	-0.48	-0.55	-0.59	-0.59	-0.73
1978	0.07	0.07	-0.26	0.65	0.67	0.92	0.87
1979	-0.14	-0.44	0.45	0.81	0.97	0.93	0.85
1980	-0.41	-0.41	-0.40	-0.64	-0.81	-0.90	-0.87
1981	-0.57	-0.57	-0.60	-0.80	-1.00	-0.96	-0.88
1982	1.19	1.19	0.14	-0.72	-0.90	0.86	0.67
1983	0.63	0.63	0.47	1.14	0.29	0.83	0.62
1984	-0.51	-0.51	-0.54	-0.84	-0.96	-0.92	-0.87
1985	-0.55	-0.55	-0.63	-0.79	-1.00	-0.96	-0.87
1986	-0.16	-0.16	-0.35	-0.57	0.70	0.92	0.87
1987	-0.57	-0.57	0.61	0.85	1.00	0.96	0.70
1988	-0.55	-0.55	-0.66	-0.82	-0.91	-0.61	-0.77
1989	-0.62	-0.62	-0.60	-0.80	-1.01	-0.80	-0.87
1990	-0.56	-0.56	-0.53	-0.91	-0.70	0.62	0.77
1991	-0.55	-0.55	-0.56	0.72	-0.64	0.80	0.77
Avg	-0.30	-0.30	-0.42	-0.63	-0.81	-0.83	-0.80

Old River @ Northern End of West Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.53	-0.53	-0.59	-0.73	-0.71	-0.67	-0.78
1977	-0.56	-0.56	-0.46	-0.53	-0.56	-0.56	-0.68
1978	0.00	0.00	-0.29	-0.61	-0.61	-0.85	-0.80
1979	-0.42	-0.42	-0.44	-0.75	-0.85	-0.85	-0.78
1980	-0.40	-0.40	-0.40	-0.60	-0.72	-0.84	-0.80
1981	-0.53	-0.53	-0.57	-0.74	-0.88	-0.88	-0.81
1982	0.96	0.96	0.05	-0.61	-0.80	-0.79	-0.62
1983	0.49	0.49	0.34	0.84	-0.31	-0.76	-0.57
1984	-0.48	-0.48	-0.51	-0.77	-0.84	-0.84	-0.80
1985	-0.52	-0.52	-0.59	-0.73	-0.88	-0.87	-0.80
1986	-0.20	-0.20	-0.35	-0.55	-0.64	-0.84	-0.80
1987	-0.54	-0.54	-0.57	0.78	-0.88	-0.88	-0.66
1988	-0.52	-0.52	-0.62	-0.75	-0.83	-0.57	-0.70
1989	-0.58	-0.58	-0.57	-0.74	-0.88	-0.73	-0.79
1990	-0.53	-0.53	-0.51	-0.83	-0.65	-0.58	-0.71
1991	-0.52	-0.52	-0.54	-0.67	-0.60	-0.73	-0.71
Avg	-0.31	-0.31	-0.41	-0.60	-0.73	-0.77	-0.74

Department of Water Resources, Delta Modeling Section

Table 1-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1A

Old River @ Highway 4

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.49	-0.49	-0.54	-0.65	-0.64	-0.62	-0.69
1977	-0.51	-0.51	-0.44	-0.49	-0.52	-0.52	-0.61
1978	-0.06	-0.06	-0.30	-0.56	-0.57	-0.74	-0.71
1979	-0.40	-0.40	-0.42	-0.67	-0.74	-0.74	-0.68
1980	-0.37	-0.37	-0.38	-0.55	-0.64	-0.73	-0.70
1981	-0.48	-0.48	-0.52	-0.66	-0.77	-0.76	-0.71
1982	-0.73	-0.73	-0.02	-0.51	-0.69	-0.70	-0.55
1983	-0.35	-0.35	0.21	-0.55	-0.31	-0.67	-0.52
1984	-0.44	-0.44	-0.47	-0.68	-0.73	-0.73	-0.70
1985	-0.47	-0.47	-0.53	-0.65	-0.76	-0.76	-0.70
1986	-0.23	-0.23	-0.35	-0.51	-0.58	-0.73	-0.70
1987	-0.49	-0.49	-0.53	-0.69	-0.76	-0.76	-0.59
1988	-0.48	-0.48	-0.55	-0.65	-0.71	-0.53	-0.62
1989	-0.51	-0.51	-0.52	-0.66	-0.77	-0.66	-0.70
1990	-0.48	-0.48	-0.47	-0.72	-0.58	-0.53	-0.63
1991	-0.48	-0.48	-0.50	-0.59	-0.55	-0.64	-0.63
Avg	-0.30	-0.30	-0.40	-0.54	-0.65	-0.68	-0.65

Middle River Upstream of Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.53	-0.53	-0.59	-0.72	-0.70	-0.67	-0.75
1977	-0.56	-0.56	-0.49	-0.55	-0.58	-0.57	-0.66
1978	-0.04	-0.04	-0.31	-0.61	-0.62	-0.80	-0.76
1979	-0.43	-0.43	-0.46	-0.74	-0.80	-0.80	-0.74
1980	-0.40	-0.40	-0.42	-0.60	-0.70	-0.79	-0.76
1981	-0.52	-0.52	-0.57	-0.73	-0.83	-0.82	-0.77
1982	-0.83	-0.83	0.00	-0.53	-0.75	-0.76	-0.59
1983	-0.40	-0.40	0.25	0.72	-0.32	-0.72	-0.55
1984	-0.48	-0.48	-0.52	-0.74	-0.79	-0.79	-0.76
1985	-0.52	-0.52	-0.58	-0.72	-0.83	-0.82	-0.76
1986	-0.25	-0.25	-0.38	-0.55	-0.64	-0.79	-0.76
1987	-0.54	-0.54	-0.58	-0.76	-0.82	-0.82	-0.65
1988	-0.53	-0.53	-0.60	-0.72	-0.79	-0.58	-0.68
1989	-0.56	-0.56	-0.57	-0.73	-0.83	-0.72	-0.75
1990	-0.53	-0.53	-0.52	-0.79	-0.65	-0.59	-0.69
1991	-0.52	-0.52	-0.54	-0.66	-0.62	-0.70	-0.69
Avg	-0.32	-0.32	-0.43	-0.59	-0.70	-0.73	-0.71

Department of Water Resources, Delta Modeling Section

Table 1-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1A

Middle River @ Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.52	-0.52	-0.57	-0.69	-0.67	-0.64	-0.72
1977	-0.55	-0.55	-0.47	-0.53	-0.56	-0.55	-0.64
1978	-0.65	-0.05	-0.31	-0.59	-0.59	-0.78	-0.74
1979	-0.42	-0.42	-0.45	-0.71	-0.78	-0.78	-0.72
1980	-0.40	-0.40	-0.41	-0.58	-0.67	-0.77	-0.74
1981	-0.51	-0.51	-0.55	-0.69	-0.80	-0.80	-0.75
1982	0.79	0.79	-0.01	0.63	0.73	-0.74	-0.68
1983	0.38	0.38	0.24	0.64	0.33	-0.70	-0.64
1984	-0.47	-0.47	-0.51	-0.71	-0.77	-0.77	-0.74
1985	-0.50	-0.50	-0.56	-0.69	-0.80	-0.80	-0.74
1986	-0.25	-0.25	-0.37	-0.54	0.61	-0.77	-0.74
1987	-0.53	-0.53	-0.56	-0.73	-0.80	-0.80	-0.63
1988	-0.51	-0.51	-0.59	-0.69	-0.75	-0.56	-0.66
1989	-0.55	-0.55	-0.55	-0.69	-0.80	-0.69	-0.73
1990	-0.52	-0.52	-0.50	-0.76	-0.62	-0.57	-0.66
1991	-0.51	-0.51	-0.53	-0.63	-0.59	-0.68	-0.66
Avg	-0.32	-0.32	-0.42	-0.57	-0.68	-0.71	-0.69

SJR @ Brandt Bridge

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.03	-0.03	-0.16	-0.38	-0.45	-0.38	-0.29
1977	-0.11	-0.11	-0.05	-0.27	-0.26	-0.24	-0.25
1978	3.69	3.69	2.58	1.15	-0.03	-0.31	-0.10
1979	0.82	0.82	0.84	-0.04	-0.34	-0.33	-0.18
1980	1.02	1.02	1.19	1.12	0.08	-0.29	-0.13
1981	0.08	0.08	-0.07	-0.31	-0.49	-0.46	-0.29
1982	7.02	7.02	4.26	1.83	-0.01	-0.07	0.66
1983	5.21	5.21	5.35	9.30	3.21	0.01	1.05
1984	0.36	0.36	0.27	-0.15	-0.32	-0.30	-0.18
1985	0.08	0.08	-0.05	-0.30	-0.48	-0.45	-0.27
1986	2.13	2.13	1.59	1.44	-0.25	-0.30	-0.22
1987	-0.01	-0.01	-0.13	-0.40	-0.48	-0.46	-0.21
1988	-0.03	-0.03	-0.11	-0.35	-0.42	-0.26	-0.26
1989	0.00	0.00	0.00	-0.39	-0.48	-0.41	-0.29
1990	0.02	0.02	0.01	-0.41	-0.35	-0.28	-0.24
1991	0.13	0.13	0.01	-0.32	-0.33	-0.32	-0.25
Avg	1.27	1.27	0.97	0.72	-0.09	-0.30	-0.09

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Table 1-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1A

Grant Line Canal @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.46	-0.46	-0.55	-0.74	-0.75	-0.68	-0.75
1977	-0.52	-0.52	-0.39	-0.53	-0.55	-0.54	-0.65
1978	-0.89	0.89	0.37	-0.25	-0.54	-0.82	-0.72
1979	-0.15	-0.15	-0.16	-0.66	-0.87	-0.84	-0.72
1980	-0.08	-0.08	-0.04	-0.25	-0.63	-0.80	-0.73
1981	-0.44	-0.44	-0.51	-0.73	-0.94	-0.90	-0.77
1982	-2.44	-2.44	-1.05	-0.11	-0.72	-0.70	-0.37
1983	-1.64	-1.64	-1.55	3.02	-0.49	-0.66	-0.24
1984	-0.32	-0.32	-0.37	-0.71	-0.86	-0.82	-0.73
1985	-0.42	-0.42	-0.53	-0.72	-0.94	-0.90	-0.76
1986	-0.35	-0.35	-0.09	-0.13	-0.63	-0.82	0.74
1987	-0.47	-0.47	-0.53	-0.79	-0.94	-0.90	-0.62
1988	-0.45	-0.45	-0.57	-0.76	-0.86	-0.56	-0.68
1989	-0.51	-0.51	-0.49	-0.75	-0.95	-0.75	-0.76
1990	-0.44	-0.44	-0.41	-0.85	-0.67	-0.58	-0.68
1991	-0.41	-0.41	-0.45	-0.68	-0.62	-0.73	-0.69
Avg	0.04	0.04	-0.12	-0.35	-0.69	-0.75	-0.66

Grant Line Canal @ West End

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.56	-0.56	-0.62	-0.79	-0.79	-0.73	-0.86
1977	-0.60	-0.60	-0.48	-0.55	-0.59	-0.59	-0.73
1978	-0.07	0.07	-0.26	-0.65	-0.67	-0.92	-0.87
1979	-0.44	-0.44	-0.45	-0.81	-0.97	-0.93	-0.85
1980	-0.41	-0.41	-0.40	-0.64	-0.81	-0.90	-0.87
1981	-0.57	-0.57	-0.60	-0.80	-1.00	-0.96	-0.88
1982	-1.19	-1.19	-0.14	-0.72	-0.90	-0.86	-0.67
1983	-0.63	-0.63	-0.47	1.14	-0.29	-0.83	-0.62
1984	-0.51	-0.51	-0.54	-0.84	-0.96	-0.92	-0.87
1985	-0.55	-0.55	-0.63	-0.79	-1.00	-0.96	-0.87
1986	-0.16	-0.16	-0.35	-0.57	-0.70	-0.92	-0.87
1987	-0.57	-0.57	-0.61	-0.85	-1.00	-0.96	-0.70
1988	-0.55	-0.55	-0.66	-0.82	-0.91	-0.61	-0.77
1989	-0.62	-0.62	-0.60	-0.80	-1.01	-0.80	-0.87
1990	-0.56	-0.56	-0.53	-0.91	-0.70	-0.62	-0.77
1991	-0.55	-0.55	-0.56	-0.72	-0.64	-0.80	-0.77
Avg	-0.30	-0.30	-0.42	-0.63	-0.81	-0.83	-0.80

Department of Water Resources, Delta Modeling Section

Appendix 2

Alternative 1C

Delta Modeling Assumptions & Results

Figure 2-1
Alternative 1C

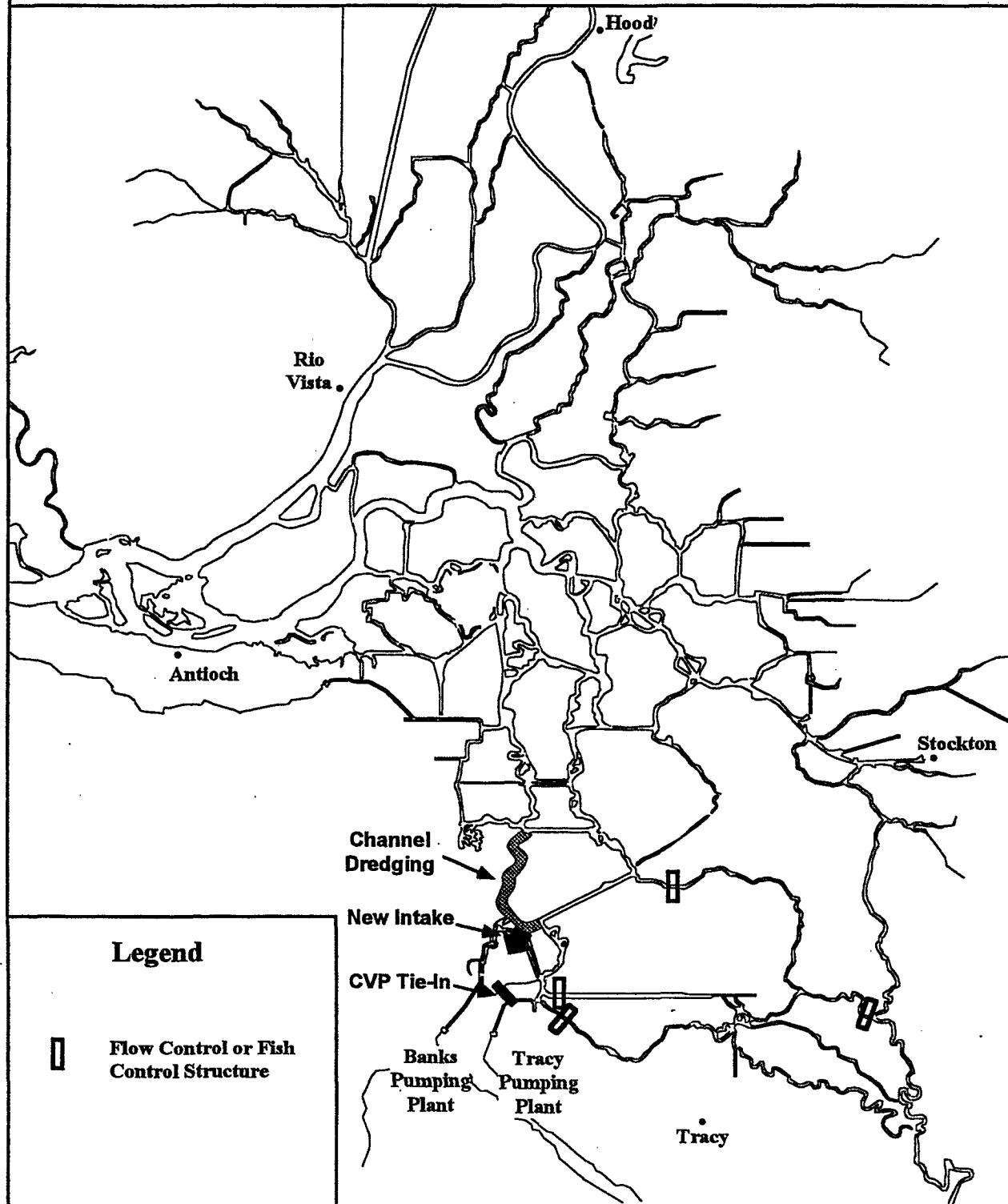


Table 2-1
Delta Hydrology for Alternative 1C (DWRSIM Study 531)
Water Years 1976 - 1991

(values in cfs)

Sacramento River Inflow at I Street

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	25,454	18,561	17,118	16,863	20,512	18,303	9,768	10,499	16,329	14,967	7,406	9,532
1977	16,445	10,463	11,027	8,936	15,220	9,084	9,777	8,128	12,079	8,951	6,284	7,847
1978	8,713	5,895	12,880	42,817	45,181	50,828	32,348	15,229	15,927	17,341	13,334	13,037
1979	14,828	13,652	13,871	25,803	42,197	35,248	18,396	13,000	20,687	22,736	13,388	12,308
1980	13,141	16,297	21,062	58,207	66,452	34,435	16,819	14,952	15,014	13,428	11,180	13,067
1981	12,063	13,857	16,197	28,196	30,063	32,318	17,463	13,000	13,771	22,847	15,573	12,216
1982	12,668	38,195	63,415	46,219	63,034	64,404	70,089	37,137	21,753	15,647	13,692	21,703
1983	27,040	39,610	57,049	60,141	83,437	82,260	69,237	54,223	54,990	22,576	19,262	26,808
1984	25,005	63,848	83,231	47,513	36,965	36,605	16,657	14,755	18,982	24,795	12,715	12,046
1985	13,399	38,198	23,214	17,708	22,591	23,025	13,613	15,306	14,221	22,940	16,519	11,741
1986	13,445	11,083	15,551	22,561	98,323	67,347	17,906	13,271	12,692	13,296	12,662	12,592
1987	13,372	12,057	13,583	17,397	23,689	33,465	12,547	13,000	13,746	21,930	13,510	9,272
1988	11,146	7,656	16,771	25,900	16,566	12,276	9,538	9,589	15,866	12,427	6,308	8,126
1989	9,445	9,025	9,083	12,066	17,164	43,417	24,025	13,823	14,181	23,605	18,423	12,226
1990	12,581	9,363	9,781	21,383	16,443	14,104	11,871	7,002	14,483	10,628	6,425	9,021
1991	9,995	7,541	7,534	7,425	13,187	30,486	15,434	8,751	9,431	9,096	11,297	9,287

San Joaquin River at Vernalis

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3,779	1,772	2,003	1,640	2,125	2,184	2,214	1,708	835	646	823	1,280
1977	2,828	2,191	1,637	1,301	1,330	1,532	1,790	1,769	710	879	829	1,080
1978	1,261	1,411	1,480	3,488	7,395	11,477	16,174	13,624	8,283	3,051	1,828	2,788
1979	4,276	2,282	2,107	4,361	7,819	8,124	6,321	7,089	3,311	1,716	1,668	2,067
1980	2,903	1,745	2,303	11,878	19,189	14,040	7,101	8,682	8,133	3,873	1,866	2,635
1981	4,680	2,049	1,834	2,353	2,675	2,622	2,866	2,258	1,420	856	924	1,510
1982	2,000	1,665	2,196	6,802	14,473	14,279	27,769	18,975	10,650	3,513	3,013	5,957
1983	8,615	8,627	18,010	23,028	35,786	41,074	21,184	22,689	37,624	15,100	3,446	7,548
1984	7,723	13,519	20,827	13,481	8,731	6,347	4,302	4,563	2,529	1,808	1,890	2,254
1985	2,000	1,917	2,072	1,873	2,729	2,427	2,914	2,451	1,420	887	908	1,537
1986	2,000	1,540	1,644	2,201	24,100	25,413	11,042	10,169	9,286	1,720	1,815	2,016
1987	3,589	1,686	1,797	1,697	2,023	2,352	2,437	1,844	825	792	883	1,442
1988	1,841	1,380	1,237	1,216	1,337	1,401	2,161	1,800	718	454	747	1,088
1989	1,199	1,277	1,289	1,223	1,338	1,683	2,659	2,635	710	953	860	1,390
1990	1,311	1,272	1,178	1,228	1,398	1,460	2,632	2,354	710	549	670	1,283
1991	1,245	1,239	1,148	1,137	1,178	2,447	3,196	2,578	710	593	651	1,189

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Table 2-1 (cont.)
Delta Hydrology for Alternative 1C (DWRSIM Study 531)
Water Years 1976 - 1991

(values in cfs)

Yolo Bypass Inflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	146	0	49	16	18	163	118	81	67	49	407	168
1977	49	34	49	65	54	146	168	537	67	146	81	34
1978	49	202	764	14,182	6,842	16,800	1,042	49	67	244	81	50
1979	65	118	33	797	648	228	50	65	67	114	49	50
1980	65	101	1,057	31,177	43,629	15,044	50	211	286	211	211	50
1981	65	34	146	488	594	195	50	65	101	98	81	50
1982	33	3,260	23,224	20,736	22,111	5,139	36,569	293	67	65	49	17
1983	130	1,613	10,571	20,866	58,628	113,532	15,444	3,058	840	49	49	50
1984	33	5,428	46,562	14,979	882	553	118	81	67	49	49	50
1985	1,382	1,109	49	146	216	65	50	65	67	49	49	50
1986	49	303	683	49	88,770	55,117	1,025	65	67	49	49	50
1987	65	34	98	146	288	423	84	81	67	49	49	50
1988	33	118	488	1,236	108	65	84	65	50	49	49	50
1989	65	84	228	81	90	537	101	81	67	49	49	17
1990	16	50	33	325	756	33	168	49	67	49	49	50
1991	65	0	65	33	126	748	50	65	67	49	49	50

Contra Costa Canal Diversion

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	220	187	148	120	103	197	0	145	249	164	168	279
1977	241	66	49	115	162	197	180	241	249	324	273	279
1978	241	193	177	143	162	99	111	220	281	511	538	464
1979	413	183	172	120	103	200	0	220	474	329	356	264
1980	236	183	146	120	63	99	0	220	418	327	355	264
1981	236	188	146	120	103	99	0	220	430	332	356	264
1982	236	185	145	120	103	34	0	220	479	327	355	264
1983	233	185	145	120	103	99	0	220	410	329	356	279
1984	223	143	181	122	104	99	0	220	435	329	356	281
1985	224	183	145	120	103	99	0	220	434	330	356	264
1986	237	150	145	120	56	150	0	220	420	327	355	264
1987	234	183	145	120	103	99	0	0	437	329	338	264
1988	96	71	99	120	103	99	0	220	281	153	231	103
1989	213	183	145	120	103	99	111	220	481	511	538	264
1990	213	183	145	120	103	197	0	241	249	250	233	166
1991	184	193	177	143	162	197	180	241	249	324	273	279

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Table 2-1 (cont.)
Delta Hydrology for Alternative 1C (DWRSIM Study 531)
Water Years 1976 - 1991

(values in cfs)

Banks Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	10,300	10,300	10,300	7,372	6,766	5,496	1,416	1,502	4,300	6,551	2,464	2,305
1977	10,300	5,965	6,524	2,920	3,442	2,718	1,523	1,712	1,780	1,598	165	1,776
1978	1,650	2,044	6,269	10,159	10,247	10,180	5,443	3,225	4,307	7,184	3,021	5,923
1979	8,188	6,326	6,316	10,300	10,299	10,012	2,534	2,176	4,858	9,268	3,824	5,060
1980	6,163	7,698	10,300	10,212	10,131	8,331	2,459	2,611	4,351	2,769	2,137	6,374
1981	6,768	6,311	7,904	10,300	9,250	9,698	2,116	1,658	2,735	9,780	5,902	4,655
1982	5,667	10,300	10,300	10,273	10,011	7,345	7,095	5,822	7,382	3,379	5,426	10,300
1983	10,300	10,244	8,361	4,087	4,455	4,378	5,666	5,439	7,523	8,457	9,210	7,631
1984	5,267	4,675	4,317	4,405	5,486	5,767	2,226	1,969	3,941	10,019	2,240	5,227
1985	6,782	10,300	10,300	8,954	7,768	4,774	1,820	2,003	2,805	10,019	6,606	4,388
1986	7,025	6,021	7,889	10,195	10,240	10,162	4,189	2,673	4,260	2,429	2,248	5,603
1987	6,938	4,206	6,118	10,300	10,299	8,781	1,658	0	2,618	9,149	3,433	2,283
1988	3,840	2,105	8,481	10,275	5,243	2,907	1,391	1,421	1,685	1,445	179	1,358
1989	2,144	3,553	3,704	4,625	5,991	10,240	2,629	1,899	2,703	10,246	8,167	4,682
1990	4,446	1,127	1,245	10,252	6,617	3,702	1,633	1,237	2,171	1,885	304	2,325
1991	2,380	2,479	2,395	1,589	1,924	8,143	1,949	1,301	84	438	2,855	2,035

Tracy Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3,794	1,764	1,812	879	1,155	1,913	1,416	1,502	1,849	970	1,256	4,181
1977	2,146	2,381	1,845	2,764	550	958	1,271	99	42	46	1,325	2,756
1978	1,500	1,252	3,974	4,207	4,263	2,194	3,235	3,225	4,307	960	4,573	4,539
1979	4,399	4,293	4,207	4,207	4,238	4,225	2,534	2,176	3,683	4,599	4,518	4,492
1980	4,371	4,280	4,207	4,207	4,248	2,709	2,459	2,611	4,351	3,545	4,599	4,487
1981	4,368	4,279	4,207	4,207	2,624	3,067	2,116	381	2,735	4,599	4,194	4,475
1982	4,026	4,276	4,207	4,207	4,273	3,348	2,821	3,640	4,600	4,599	4,599	4,516
1983	4,386	4,287	4,207	1,260	1,271	1,900	3,008	3,590	4,600	4,599	4,599	3,286
1984	1,341	1,619	2,796	1,238	1,443	3,210	2,226	1,969	3,941	4,599	4,599	4,505
1985	4,380	4,284	4,207	4,207	4,250	4,225	1,820	2,003	2,805	4,599	4,599	4,429
1986	3,184	2,420	4,207	4,207	4,228	3,301	2,183	2,627	3,915	932	4,599	4,405
1987	4,319	4,257	4,207	1,310	1,063	2,127	1,658	0	2,618	4,599	4,599	3,639
1988	4,008	2,227	4,207	4,207	1,175	1,944	1,391	1,421	4,249	2,913	1,047	3,248
1989	1,650	2,814	3,189	4,207	733	4,225	2,629	1,899	2,703	4,599	4,599	4,376
1990	4,302	4,249	4,207	3,961	1,030	1,910	1,633	1,237	1,948	922	1,016	3,347
1991	2,143	1,773	2,017	2,144	378	4,225	1,949	1,530	870	878	3,429	3,566

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Table 2-1 (cont.)
Delta Hydrology for Alternative 1C (DWRSIM Study 531)
Water Years 1976 - 1991

(values in cfs)

Delta Channel Depletions

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	732	874	943	49	414	1,382	1,681	3,285	4,151	4,229	1,903	1,328
1977	1,236	807	862	-114	504	1,008	2,185	1,610	4,134	4,294	2,667	1,294
1978	1,269	689	146	-5,009	-1,891	-1,610	420	2,342	4,117	4,229	2,830	1,513
1979	1,382	622	894	-2,179	-2,557	179	1,227	2,374	4,302	4,115	2,618	1,748
1980	862	723	-33	-2,700	-3,601	309	1,210	2,000	3,697	3,773	2,618	1,563
1981	1,334	891	748	-732	198	-293	1,580	2,488	4,453	4,342	2,830	1,513
1982	846	101	-520	-4,407	-612	-2,911	34	2,342	3,512	4,050	2,667	924
1983	781	-1,126	-829	-4,733	-3,547	-4,635	-50	1,968	4,033	4,050	2,732	1,395
1984	1,203	-17	-2,017	-146	-162	748	1,529	2,716	4,033	4,294	2,749	1,815
1985	813	-437	33	-504	36	-374	1,714	2,797	4,285	4,180	2,618	1,344
1986	1,122	387	49	-1,480	-5,906	-1,269	1,193	2,293	4,067	4,163	2,879	1,227
1987	1,301	908	829	-179	-378	-114	2,000	2,862	4,067	3,936	2,765	1,714
1988	1,171	672	276	-1,447	342	1,041	1,496	2,196	3,764	4,700	2,879	1,748
1989	1,334	672	618	-114	90	0	1,933	2,716	3,949	4,521	2,749	840
1990	976	756	927	-455	-270	992	1,899	1,155	4,201	4,456	2,830	1,714
1991	1,236	874	813	49	396	-504	1,529	2,049	3,210	4,391	2,700	1,832

Net Delta Outflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	14,652	7,524	6,262	10,362	14,623	12,070	7,795	6,047	6,897	4,000	3,000	3,000
1977	5,457	3,500	3,500	4,729	12,007	6,018	6,963	6,897	6,897	4,000	3,000	3,000
1978	5,454	3,500	5,133	54,229	48,804	70,915	43,027	20,484	11,473	8,000	4,447	3,513
1979	4,840	4,788	4,500	20,092	41,862	31,452	19,427	13,733	10,970	6,500	4,000	3,000
1980	4,445	5,430	10,362	95,051	120,548	54,745	18,955	17,894	11,920	8,000	4,432	3,881
1981	4,288	4,500	5,530	18,097	21,657	24,278	15,076	10,801	5,151	5,000	3,500	3,000
1982	4,000	29,431	76,544	70,095	94,604	83,100	137,742	48,234	18,138	8,000	4,772	12,760
1983	20,567	40,172	82,969	113,158	189,009	254,499	102,701	75,761	81,034	21,957	7,414	23,392
1984	25,159	83,597	156,645	74,191	42,900	35,616	16,260	13,609	10,041	8,000	5,249	3,000
1985	4,830	28,448	11,364	7,375	14,452	17,885	11,901	11,074	5,577	5,000	3,500	3,000
1986	4,000	4,500	6,225	12,888	221,570	144,611	24,122	17,136	10,586	8,000	5,183	3,773
1987	4,403	4,500	4,500	8,081	15,851	26,479	9,963	12,356	5,102	5,000	3,500	3,000
1988	4,000	4,500	6,365	15,791	11,400	7,917	7,769	6,367	6,896	4,000	3,000	3,000
1989	5,455	3,500	3,500	4,730	12,003	32,654	19,875	10,162	5,506	5,000	3,500	3,653
1990	4,000	4,500	4,500	9,408	11,586	9,163	9,844	5,727	6,940	4,000	3,000	3,000
1991	5,439	3,500	3,500	4,744	11,968	23,222	13,297	6,471	6,050	4,000	3,000	3,000

Department of Water Resources, Delta Modeling Section

Table 2-2
Operation of Delta Facilities
under
Alternative 1C

Delta Cross Channel

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	X	X	X	X	X	X	X	X	X	O	O	O
1977	O	X	X	X	X	X	X	X	X	O	O	O
1978	O	X	X	X	X	X	X	X	X	O	O	O
1979	O	X	X	X	X	X	X	X	X	O	O	O
1980	O	X	X	X	X	X	X	X	X	O	O	O
1981	O	X	X	X	X	X	X	X	X	O	O	O
1982	O	X	X	X	X	X	X	X	X	O	O	O
1983	X	X	X	X	X	X	X	X	X	O	O	X
1984	X	X	X	X	X	X	X	X	X	O	O	O
1985	O	X	X	X	X	X	X	X	X	O	O	O
1986	O	X	X	X	X	X	X	X	X	O	O	O
1987	O	X	X	X	X	X	X	X	X	O	O	O
1988	O	X	X	X	X	X	X	X	X	O	O	O
1989	O	X	X	X	X	X	X	X	X	O	O	O
1990	O	X	X	X	X	X	X	X	X	O	O	O
1991	O	X	X	X	X	X	X	X	X	O	O	O

Note: 'X' denotes gates closed, 'O' denotes gates open.

Suisun Marsh Salinity Control Gates

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	O	O	O	O	O	O	O	O	N	N	N	N
1977	O	O	O	O	O	O	O	O	N	N	N	N
1978	N	N	N	N	N	N	N	N	N	N	N	N
1979	O	O	O	O	O	O	O	O	N	N	N	N
1980	N	N	N	N	N	N	N	N	N	N	N	N
1981	O	O	O	O	O	O	O	O	N	N	N	N
1982	N	N	N	N	N	N	N	N	N	N	N	N
1983	N	N	N	N	N	N	N	N	N	N	N	N
1984	N	N	N	N	N	N	N	N	N	N	N	N
1985	O	O	O	O	O	O	O	O	N	N	N	N
1986	N	N	N	N	N	N	N	N	N	N	N	N
1987	O	O	O	O	O	O	O	O	N	N	N	N
1988	O	O	O	O	O	O	O	O	N	N	N	N
1989	O	O	O	O	O	O	O	O	N	N	N	N
1990	O	O	O	O	O	O	O	O	N	N	N	N
1991	O	O	O	O	O	O	O	O	N	N	N	N

Note: 'N' denotes gates not operating, 'O' denotes gates are operating.

Table 2-2 (cont.)
Operation of Delta Facilities
under
Alternative 1C

South Delta Flow Control Structures

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-31)	May	Jun	Jul	Aug	Sep
1976	2	0	0	0	0	0	2	2	2	3B	3A	3A	3B
1977	2	0	0	0	0	0	2	2	2	3A	3B	3A	3A
1978	2	0	0	0	0	0	2	2	2	3C	3C	3B	3C
1979	2	0	0	0	0	0	2	2	2	3C	3B	3B	3B
1980	2	0	0	0	0	0	2	2	2	3C	3C	3B	3B
1981	2	0	0	0	0	0	2	2	2	3B	3B	3A	3B
1982	2	0	0	0	0	0	0	0	2	3C	3C	3C	3C
1983	2	0	0	0	0	0	0	0	0	0	3C	3C	3C
1984	2	0	0	0	0	0	2	2	2	3B	3B	3B	3B
1985	2	0	0	0	0	0	2	2	2	3B	3B	3A	3B
1986	2	0	0	0	0	0	2	2	2	3C	3B	3B	3B
1987	2	0	0	0	0	0	2	2	2	3B	3A	3A	3B
1988	2	0	0	0	0	0	2	2	2	3A	3A	3A	3A
1989	2	0	0	0	0	0	2	2	2	3A	3B	3A	3B
1990	2	0	0	0	0	0	2	2	2	3A	3A	3A	3B
1991	2	0	0	0	0	0	2	2	2	3A	3A	3A	3A

Note: '0' denotes no structures operating, '2' denotes Old River, Middle River operating, '3' series denote all three structures operating: 'A' - GLC with special operation, 'B' - GLC and Old R with special operation, 'C' - GLC, Old River, and Middle River structures with special operation.

Head of Old River Fish Control Structure

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-31)	May	Jun	Jul	Aug	Sep
1976	O	O	N	N	N	N	N	O	O	N	N	N	N
1977	O	O	N	N	N	N	N	O	O	N	N	N	N
1978	O	O	N	N	N	N	N	N	N	N	N	N	N
1979	G	O	N	N	N	N	N	O	G	N	N	N	N
1980	O	O	N	N	N	N	N	O	N	N	N	N	N
1981	O	O	N	N	N	N	N	O	O	N	N	N	N
1982	O	O	N	N	N	N	N	N	N	N	N	N	N
1983	N	N	N	N	N	N	N	N	N	N	N	N	N
1984	O	N	N	N	N	N	N	O	O	N	N	N	N
1985	O	O	N	N	N	N	N	O	O	N	N	N	N
1986	G	O	N	N	N	N	N	N	N	N	N	N	N
1987	G	O	N	N	N	N	N	O	G	N	N	N	N
1988	O	O	N	N	N	N	N	O	O	N	N	N	N
1989	O	O	N	N	N	N	N	O	O	N	N	N	N
1990	O	O	N	N	N	N	N	O	O	N	N	N	N
1991	C	O	N	N	N	N	N	O	O	N	N	N	N

Note: 'N' denotes gates not operating, 'O' denotes gates are operating to make complete closure.

Table 2-2 (cont.)
Operation of Delta Facilities
under
Alternative 1C

Clifton Court Forebay Intake Gate Priority

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	4	4	4	4	4	4	3	3	3	4	4	4
1977	4	4	4	4	4	4	3	3	3	4	4	4
1978	4	4	4	4	4	4	3	3	3	4	4	4
1979	4	4	4	4	4	4	3	3	3	4	4	4
1980	4	4	4	4	4	4	3	3	3	4	4	4
1981	4	4	4	4	4	4	3	3	3	4	4	4
1982	4	4	4	4	4	4	3	3	4	4	4	4
1983	4	4	4	4	4	4	3	3	3	4	4	4
1984	4	4	4	4	4	4	3	3	3	4	4	4
1985	4	4	4	4	4	4	3	3	3	4	4	4
1986	4	4	4	4	4	4	3	3	3	4	4	4
1987	4	4	4	4	4	4	3	3	3	4	4	4
1988	4	4	4	4	4	4	3	3	3	4	4	4
1989	4	4	4	4	4	4	3	3	3	4	4	4
1990	4	4	4	4	4	4	3	3	3	4	4	4
1991	4	4	4	4	4	4	3	3	3	4	4	4

Note: See Figure 7 for description of the values.

Monthly Average Diversion into Clifton Court Forebay (cfs)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	14,094	12,064	12,112	8,252	7,921	7,409	2,832	3,004	6,149	7,521	3,720	6,486
1977	12,446	8,345	8,369	5,684	3,992	3,675	2,794	1,811	1,822	1,643	1,490	4,532
1978	11,150	3,297	10,243	14,367	14,510	12,374	8,678	6,450	8,614	8,143	7,594	10,462
1979	11,587	10,619	10,524	14,508	14,537	14,237	9,068	4,352	8,541	13,867	8,342	9,552
1980	10,534	11,979	14,508	14,420	14,379	11,040	4,918	5,222	8,702	6,314	6,736	10,861
1981	11,136	10,590	12,112	14,508	11,874	12,765	4,232	3,315	5,470	14,379	10,096	9,130
1982	9,693	14,576	14,507	14,481	14,284	10,694	9,916	9,461	11,982	7,978	10,025	14,816
1983	14,685	14,531	12,568	5,347	5,726	6,278	8,674	9,029	12,123	13,056	11,809	10,916
1984	6,608	6,294	7,113	5,643	6,929	8,977	4,452	3,938	7,882	14,617	6,840	9,732
1985	11,162	14,584	14,507	13,162	12,018	8,999	3,640	4,006	5,610	14,618	11,205	8,817
1986	10,209	8,440	12,096	14,403	14,468	13,463	6,372	5,299	8,175	3,361	6,847	10,008
1987	11,237	8,463	10,325	11,610	11,362	10,909	3,316	2,807	5,236	13,747	8,032	5,922
1988	7,848	4,331	12,689	14,483	6,418	4,852	2,782	2,842	5,933	4,358	1,226	4,605
1989	3,794	6,367	6,893	8,833	6,724	14,466	5,257	3,799	5,406	14,845	12,767	9,058
1990	8,748	5,376	5,452	14,213	7,647	5,612	3,266	2,474	4,118	2,807	1,320	5,672
1991	4,523	4,252	4,412	3,733	2,302	12,368	3,898	2,831	954	1,315	6,284	5,601

Note: Alternative 1C assumes Clifton Court Forebay diversions to meet Banks and Tracy pumping demands.

Figure 2-2

Output Locations for Average Flows
(Arrows show sign convention for positive flow)

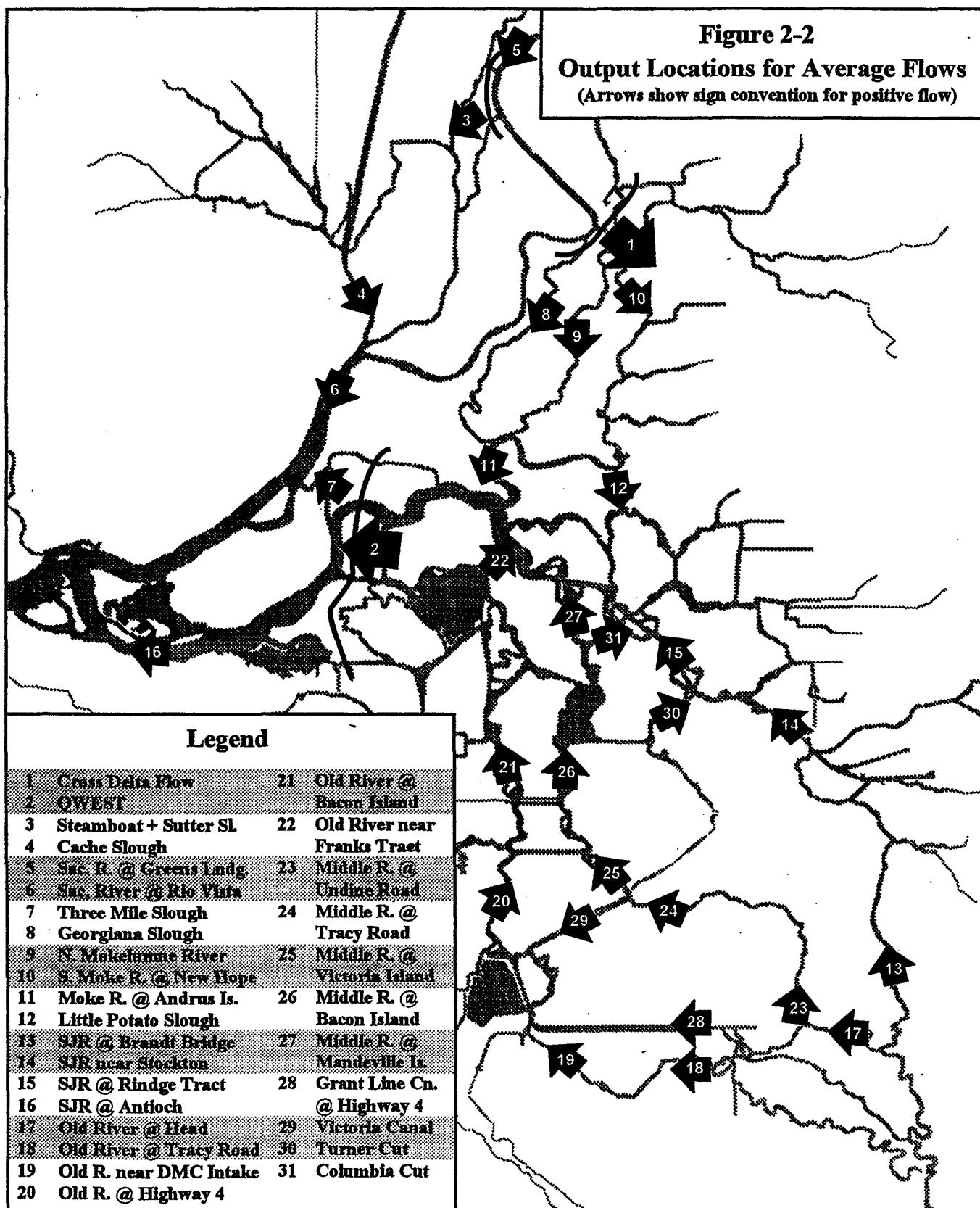


Table 2-3
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Cross Delta Flow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3276	2839	2739	2658	2897	2742	1842	1841	1958	2594	7077	3802	4875
1977	7643	2084	2161	1845	2464	1819	1858	1857	1590	2118	4329	3070	4014
1978	4294	1280	2405	4667	4790	5224	3468	3468	2218	2445	7670	6482	6482
1979	7067	2444	2468	3301	4495	3909	2581	2581	2123	2905	9601	6543	6185
1980	6484	2698	3066	5949	6649	3808	2446	2448	2256	2332	6159	5469	6319
1981	5897	2462	2676	3496	3584	3738	2582	2581	2192	2365	9701	7422	6160
1982	6311	4281	6479	4886	6255	6316	6731	6731	3807	2881	6988	6505	8894
1983	3326	4276	5634	5839	7979	8121	6711	6710	5269	5258	8479	8226	3241
1984	3084	6248	8037	4840	3937	3990	2489	2486	2326	2773	10064	6133	6019
1985	6650	4257	3164	2791	3073	3060	2253	2250	2440	2405	9727	7776	5920
1986	6616	2180	2651	3125	9547	6677	2455	2455	2059	2078	6062	6087	6214
1987	6474	2266	2439	2749	3152	3816	2173	2171	2142	2363	9426	6620	4711
1988	5602	1608	2741	3363	2611	2220	1814	1813	1838	2558	5987	3072	4152
1989	4654	1882	1904	2288	2659	4682	3074	3071	2297	2408	9907	8439	6162
1990	6263	1902	1961	3075	2636	2400	2095	2093	1391	2399	5119	3143	4627
1991	4967	1605	1609	1569	2246	3631	2428	2425	1689	1751	4392	5690	4736
avg	5538	2770	3258	3528	4311	4135	2938	2936	2350	2602	7543	5905	5544

QWEST

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-7257	-7762	-7758	-3764	-2873	-3168	263	263	-1319	-5364	-2437	-348	-1288
1977	-2768	-4508	-5014	-2395	-649	-1163	-579	-576	512	-1644	736	589	-428
1978	1530	-1012	-6346	-1456	409	7133	12659	12661	8148	-603	-426	-1493	-2498
1979	-2363	-6271	-6539	-5035	999	-847	3920	3915	3546	-5319	-5278	-1967	-2528
1980	-1817	-7977	-9138	8087	17821	8497	4892	4897	5628	267	1875	-579	-2306
1981	-1320	-6503	-7870	-7765	-5285	-4915	695	695	816	-4732	-6719	-3786	-2559
1982	-1960	-8197	-4360	4391	13604	17022	36107	36110	15305	471	650	-1560	357
1983	-2949	1094	18274	33863	50855	60483	23980	23981	24000	31844	9206	-2763	290
1984	3785	18493	31714	16021	8589	2556	2419	2416	2025	-4780	-5251	-439	-2393
1985	-2897	-7491	-8873	-7896	-5473	-2659	971	999	-918	-4737	-6734	-4378	-2346
1986	-2298	-4764	-7651	-7538	37079	25966	8086	8086	6629	1327	2172	-473	-2146
1987	-1986	-4914	-6401	-6794	-5440	-3750	133	138	2329	-4831	-6148	-2483	-973
1988	-1031	-1540	-8666	-8856	-2510	-1818	332	334	-711	-5061	-826	675	-412
1989	1143	-3614	-4006	-5210	-2584	-6900	-615	-617	-467	-4883	-7147	-5605	-2170
1990	-1882	-2731	-2928	-9641	-3427	-2242	441	438	560	-3612	-7	613	-836
1991	858	-2064	-2204	-1089	918	-5340	686	684	-6	-717	751	-1784	-977
avg	-1451	-3110	-2360	-317	6377	5553	5899	5902	4130	-773	-1599	-1611	-1451

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Steamboat & Sutter Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	12605	8632	7836	7754	9755	8489	4228	4228	4482	7331	4546	1992	2654
1977	5279	4506	4771	3805	6899	3881	4189	4189	3451	5234	2475	1696	2147
1978	2485	2409	5718	21865	23119	25978	16421	16421	6980	7201	5675	3952	3831
1979	4593	6080	6170	12926	21560	17847	8650	8651	5817	9735	8172	3965	3553
1980	3917	7404	10055	30176	34693	17443	7810	7810	6826	6764	4100	3229	3913
1981	3566	6169	7361	14151	15096	16296	8099	8100	5773	6043	8193	4812	3523
1982	3735	19384	32922	23723	32812	33511	36751	36751	18884	10420	4989	4147	7948
1983	13514	20177	29558	31363	44214	43518	36227	36227	28022	28393	8536	6654	13387
1984	12394	33281	43994	24414	18807	18556	7681	7683	6650	8794	9302	3765	3479
1985	3993	19420	11305	8205	10993	11262	6114	6116	6907	6277	8253	5217	3375
1986	4017	4839	7021	10968	52529	35209	8414	8414	5986	5607	4055	3752	3716
1987	4036	5286	6028	8018	11632	16892	5566	5566	5765	6027	7736	3997	2577
1988	3212	3216	7685	12876	7604	5418	4132	4133	4108	7122	3585	1700	2220
1989	2712	3832	3857	5306	7918	22118	11811	11811	6162	6259	8574	6059	3553
1990	3704	3997	4186	10256	7534	6337	5243	5244	2939	6400	3004	1733	2483
1991	2871	3147	3139	3115	5908	15322	7038	7039	3715	3996	2515	3191	2570
Avg	5415	9486	11975	14308	19442	18630	11148	11149	7654	8225	5857	3741	4058

Cache Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3612	2298	2121	2165	2680	2329	1015	1016	830	1508	696	604	623
1977	1321	1166	1263	1130	1927	1112	1020	1020	1185	951	221	126	428
1978	573	786	2440	21717	13760	24682	5597	5598	1629	1477	1257	753	850
1979	1139	1716	1639	4976	7394	5304	2290	2289	1340	2209	1891	766	756
1980	1043	2073	4017	40303	54293	19912	2018	2019	1813	1622	816	701	867
1981	849	1635	2112	4703	4852	4852	2050	2049	1298	1163	1853	1004	781
1982	946	8800	32723	28298	31485	15380	47021	47023	5312	2482	907	803	2121
1983	3853	7616	19083	30504	71770	126398	25622	25622	10711	8316	1928	1519	3617
1984	3366	14902	59412	21890	6240	5740	2017	2018	1515	1958	2141	681	716
1985	2355	6796	3282	2513	3317	3353	1503	1503	1578	1201	1851	1122	761
1986	997	1597	2744	3529	104582	65322	3148	3148	1370	1046	617	672	882
1987	996	1382	1684	2401	3632	5225	1343	1345	1333	1142	1679	712	448
1988	742	904	2663	5326	2208	1451	998	997	871	1498	393	68	381
1989	637	1080	1250	1599	2309	6926	3178	3180	1390	1216	1863	1337	864
1990	924	1066	1089	3400	3096	1715	1348	1348	615	1234	260	90	475
1991	707	769	857	920	1753	5457	1850	1850	839	797	153	563	499
Avg	1504	3412	8649	10961	19706	18447	6376	6377	2102	1864	1158	720	942

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	25385	18486	17023	16833	20440	18183	9672	9673	10269	16052	14704	7288	9440
1977	16343	10380	10937	8904	15139	9011	9623	9623	8025	11808	8689	6131	7760
1978	8610	5831	12907	43151	45277	50594	32311	32311	15089	15698	17111	13171	12932
1979	14720	13599	13785	26060	42367	35235	18327	18326	12859	20445	22510	13237	12193
1980	13065	16222	21095	58381	66652	34413	16756	16755	14832	14804	13216	11029	12960
1981	11957	13778	16126	28297	30023	32324	17367	17366	12837	13519	22609	15410	12113
1982	12598	38240	63443	46464	63066	64432	70113	70113	37001	21555	15429	13536	21636
1983	26979	39709	57050	60370	83648	82491	69213	69213	54108	54765	22353	19104	26707
1984	24907	63866	83338	47512	36965	36548	16557	16557	14566	18760	24560	12558	11928
1985	13330	38308	23168	17734	22594	23039	13516	13515	15131	13982	22714	16369	11649
1986	13352	11079	15536	22656	98670	67422	17827	17827	13123	12465	13068	12496	12506
1987	13273	11977	13499	17372	23696	33441	12436	12436	12803	13477	21686	13354	9162
1988	11052	7593	16763	25999	16523	12198	9469	9468	9458	15644	12136	6140	8014
1989	9341	8961	9025	12051	17115	43435	23928	23928	13654	13936	23324	18266	12161
1990	12494	9285	9686	21421	16464	14041	11770	11770	6903	14197	10351	5262	8912
1991	9898	7463	7449	7395	13140	30565	15355	15354	8603	9195	8821	11136	9172
Avg	14832	19674	24427	28788	38236	36711	22765	22765	16204	17519	17080	12218	12453

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	22006	15382	14057	14113	17381	15228	7513	7513	7583	12552	6685	3382	4298
1977	8359	8068	8559	7097	12572	7109	7437	7438	6510	8851	3553	2504	3438
1978	4052	4564	11247	54627	47823	62953	29721	29721	12348	12394	8719	6081	6056
1979	7329	11047	11078	24315	39439	31525	15497	15498	10253	16662	12083	6109	5582
1980	6391	13389	19198	84536	104908	45535	14023	14022	12303	11922	6385	5130	6238
1981	5743	11078	13362	25493	26926	28771	14417	14419	10110	10257	12019	7375	5582
1982	6049	37155	80440	63618	79066	64336	100028	100032	32916	17923	7583	6434	12445
1983	23524	37283	62136	76566	135450	189227	77856	77857	51419	49450	12999	10261	23106
1984	21508	62985	122508	57619	33884	32895	13789	13792	11656	15137	13568	5803	5453
1985	7786	35244	20045	15190	19707	20181	10906	10911	12108	10675	12098	8001	5386
1986	6454	9037	13592	20096	179751	116341	16045	16045	10561	9558	6120	5781	5974
1987	6495	9473	10912	14753	20857	30021	9881	9883	10113	10223	11383	6083	4011
1988	5142	5878	14427	24447	13902	9771	7359	7360	7133	12268	5156	2436	3452
1989	4416	6968	7174	9855	14500	39340	20526	20529	10772	10667	12432	9195	5741
1990	5975	7206	7494	18879	14861	11471	9396	9398	5167	10891	4296	2503	3891
1991	4684	5622	5696	5841	10882	28078	12654	12656	6533	6934	3539	4884	4044
Avg	9120	17524	26370	32315	48244	45799	22940	22942	13593	14148	8664	5748	6544

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Three Mile Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-3551	-3404	-3350	-2712	-2715	-2675	-1743	-1740	-2006	-2919	-2123	-1605	-1802
1977	-2213	-2534	-2647	-2151	-2147	-1964	-1876	-1873	-1659	-2149	-1475	-1440	-1620
1978	-1342	-1835	-2993	-3748	-3207	-2683	-665	-665	-739	-2152	-1904	-1935	-2087
1979	-2095	-2958	-3016	-3271	-2792	-2843	-1537	-1528	-1338	-3090	-2847	-2012	-2070
1980	-1978	-3371	-3792	-3389	-2679	-1883	-1333	-1323	-1130	-1976	-1411	-1733	-2063
1981	-1840	-3001	-3334	-3751	-3410	-3400	-2009	-2004	-1790	-2708	-3077	-2366	-2072
1982	-1984	-4219	-5270	-3135	-2251	-1130	554	554	-345	-2224	-1672	-1960	-1937
1983	-2941	-2739	-856	1130	1201	-1602	526	525	419	1713	-567	-2342	-2418
1984	-1809	-864	-1271	-1084	-1450	-2379	-1719	-1714	-1679	-2940	-2907	-1749	-2040
1985	-2183	-4016	-3753	-3409	-3205	-2776	-1794	-1784	-2156	-2728	-3077	-2490	-2027
1986	-2062	-2636	-3319	-3559	-4561	-1895	-910	-910	-886	-1697	-1356	-1754	-2021
1987	-1989	-2666	-2982	-3217	-3241	-3259	-1878	-1874	-1576	-2718	-2951	-2090	-1742
1988	-1774	-1957	-3502	-3892	-2503	-2196	-1725	-1721	-1882	-2851	-1785	-1429	-1620
1989	-1394	-2337	-2415	-2730	-2541	-4066	-2458	-2454	-2019	-2744	-3163	-2748	-2013
1990	-1951	-2211	-2265	-3836	-2681	-2345	-1805	-1800	-1585	-2551	-1610	-1441	-1714
1991	-1450	-2034	-2063	-1888	-1820	-3453	-1925	-1920	-1738	-1911	-1470	-1914	-1740
Avg	-2035	-2674	-2927	-2790	-2500	-2534	-1459	-1455	-1382	-2228	-2087	-1938	-1937

Georgiana Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3270	2832	2731	2655	2892	2735	1834	1834	1940	2571	1738	1099	1337
1977	1860	2077	2154	1844	2458	1813	1849	1848	1581	2099	1208	959	1156
1978	1200	1274	2399	4692	4797	5236	3467	3467	2211	2430	1902	1619	1616
1979	1745	2439	2461	3310	4509	3910	2577	2576	2114	2888	2266	1629	1565
1980	1626	2692	3062	5962	6663	3805	2441	2443	2247	2320	1578	1455	1651
1981	1550	2455	2669	3494	3581	3737	2576	2574	2180	2345	2288	1811	1560
1982	1593	4276	6482	4904	6256	6331	6727	6727	3797	2867	1763	1662	2170
1983	3320	4271	5634	5853	7994	8138	6712	6712	5262	5243	2088	2088	3235
1984	3077	6242	8034	4838	3936	3985	2483	2479	2311	2755	2383	1559	1548
1985	1668	4252	3161	2794	3073	3064	2247	2244	2428	2388	2295	1884	1537
1986	1652	2175	2644	3131	9567	6684	2449	2449	2050	2064	1566	1557	1596
1987	1651	2258	2432	2748	3150	3816	2166	2164	2129	2344	2230	1645	1304
1988	1450	1602	2734	3367	2607	2214	1808	1807	1827	2540	1526	952	1169
1989	1276	1876	1898	2286	2657	4680	3067	3065	2286	2390	2334	2021	1562
1990	1577	1895	1953	3075	2636	2395	2089	2087	1383	2383	1387	968	1261
1991	1319	1598	1602	1566	2239	3628	2422	2419	1681	1745	1217	1467	1297
Avg	1865	2763	3253	3532	4313	4136	2932	2931	2339	2586	1861	1523	1598

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

North Mokelumne River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	112	91	42	92	123	99	7	15	-85	-189	3901	1902	2543
1977	4390	-39	-53	17	-87	-74	8	15	-17	-148	2167	1449	2043
1978	2264	82	123	1704	1077	1364	1286	1286	232	-151	4237	3553	3607
1979	4024	-15	-76	547	1356	977	473	492	206	-208	5489	3624	3419
1980	3620	-45	47	2249	3120	1221	592	611	867	604	3820	3408	3976
1981	3354	50	62	282	153	759	187	198	8	-185	5535	4168	3412
1982	3564	330	724	3324	4712	3867	8404	8404	2396	806	4462	4198	5915
1983	167	1467	4665	5457	8049	11073	3066	3066	4461	2562	5808	5576	876
1984	226	3473	6520	2163	1784	988	590	605	527	204	6005	3600	3554
1985	3886	514	216	154	451	399	278	290	-19	-192	5562	4404	3237
1986	3772	151	137	521	11132	4873	1018	1018	819	517	3629	3689	3832
1987	3681	79	70	93	260	500	-10	0	-73	-175	5397	3653	2443
1988	3098	118	150	212	35	-34	-33	-25	-79	-180	3188	1450	2143
1989	2446	34	46	-5	37	672	42	53	38	-62	5671	4810	3433
1990	3483	-21	-65	2	133	128	25	35	34	-166	2614	1492	2437
1991	2666	-42	-3	15	47	638	-32	-20	-37	-98	2194	3057	2460
Avg	2797	389	788	1052	2024	1716	994	1003	580	184	4355	3377	3083

South Mokelumne River @ New Hope

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	277	255	238	223	255	240	93	85	69	131	1348	795	1010
1977	1446	103	125	106	98	56	108	101	48	71	861	633	848
1978	895	76	236	1066	787	882	703	703	160	72	1419	1250	1269
1979	1342	156	148	481	879	692	351	332	157	138	1747	1275	1226
1980	1257	179	270	1306	1622	734	389	370	507	439	1357	1274	1415
1981	1191	194	243	400	334	621	245	233	113	106	1760	1414	1226
1982	1260	470	798	1707	2226	1892	3276	3276	1218	564	1547	1488	1905
1983	287	918	2144	2314	3149	4061	1588	1588	2041	1244	1867	1861	623
1984	227	1762	2754	1173	1009	700	421	406	364	332	1904	1290	1289
1985	1349	546	351	287	441	391	264	252	135	106	1766	1472	1185
1986	1316	211	272	471	4098	2204	561	561	458	367	1279	1329	1369
1987	1281	185	218	249	348	496	118	109	66	111	1725	1284	983
1988	1136	127	286	352	186	115	68	60	49	118	1158	627	874
1989	956	123	144	151	188	657	226	215	145	163	1797	1573	1226
1990	1234	90	86	247	232	215	125	115	46	100	1011	643	967
1991	1011	49	81	72	138	553	120	108	48	59	869	1134	977
Avg	1029	340	525	663	999	907	541	532	352	258	1463	1209	1150

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Mokelumne River @ Andrus Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2268	1889	1736	1864	2070	1916	1290	1328	1212	1380	4077	2164	2825
1977	4718	1342	1323	1270	1641	1174	1262	1293	1120	1206	2382	1712	2330
1978	2617	952	1616	4865	4402	5199	4028	4028	2063	1544	4536	3794	3851
1979	4374	1577	1479	2745	4509	3639	2368	2454	1861	1622	5684	3851	3648
1980	3954	1672	1957	6490	8010	4050	2407	2502	2517	2154	4052	3591	4187
1981	3728	1625	1707	2508	2514	3172	1986	2035	1566	1250	5686	4367	3643
1982	3864	3087	5079	6518	8798	8338	12793	12793	5210	2737	4666	4366	6289
1983	2457	4359	8478	9851	13953	16852	8100	8099	8185	6937	6388	5790	3063
1984	2596	7858	12090	5759	4584	3734	2326	2388	2165	1890	6193	3820	3747
1985	4153	3261	2201	1926	2427	2481	1837	1886	1665	1284	5720	4605	3494
1986	4061	1562	1770	2521	17412	9682	2896	2896	2374	1925	3855	3891	4031
1987	4021	1546	1587	1858	2319	3048	1503	1544	1495	1263	5567	3870	2724
1988	3403	1202	1815	2375	1806	1469	1247	1283	1190	1405	3369	1700	2404
1989	2802	1269	1260	1487	1852	3685	2158	2205	1633	1406	5824	5003	3682
1990	3773	1254	1223	1933	1925	1736	1492	1534	1042	1349	2842	1744	2684
1991	3000	1040	1050	1098	1641	2974	1693	1745	1167	1080	2418	3273	2733
Avg	3487	2218	2898	3442	4991	4572	3087	3126	2279	1902	4579	3596	3458

Little Potato Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1330	1219	1197	1095	1160	1071	549	509	501	841	2611	1520	1980
1977	2892	732	828	704	786	554	570	539	393	549	1551	1160	1634
1978	1658	418	1097	2977	2404	2518	1457	1457	423	560	2704	2445	2552
1979	2647	945	977	1715	2490	1987	971	885	489	929	3512	2510	2450
1980	2483	1090	1391	3286	3620	1682	952	859	990	1012	2426	2378	2760
1981	2280	1001	1195	1682	1540	2000	933	881	595	729	3573	2842	2462
1982	2490	1965	3008	3735	4469	4018	5597	5597	2067	1287	2800	2811	3630
1983	1255	2374	4045	4123	5497	6735	3293	3293	3476	1882	3071	3558	1583
1984	851	3605	5428	2420	2158	1890	1081	1015	872	1139	3780	2448	2521
1985	2687	2050	1564	1356	1548	1448	852	801	719	748	3593	2988	2381
1986	2602	927	1241	1750	7933	4255	1083	1083	837	792	2306	2501	2685
1987	2502	902	1062	1251	1469	1845	658	616	462	757	3507	2542	1901
1988	2200	584	1328	1687	991	756	516	479	472	842	2174	1142	1671
1989	1789	702	767	955	1023	2369	1069	1021	686	854	3661	3228	2478
1990	2449	641	669	1419	1139	950	645	600	346	734	1856	1177	1870
1991	1912	492	558	546	737	1897	724	669	406	456	1561	2215	1891
Avg	2127	1228	1647	1919	2435	2248	1309	1269	858	882	2793	2342	2278

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3767	1757	167	169	302	307	610	2112	1548	-28	150	495	425
1977	2807	2183	139	175	242	311	472	1640	1686	317	96	496	640
1978	1226	1403	35	674	2684	4601	7062	7062	5776	3787	890	516	886
1979	4234	2278	236	1157	3023	3154	2559	6247	6942	944	243	439	672
1980	2890	1737	212	5007	8641	6058	2950	7022	3657	3788	1488	573	949
1981	4641	2036	100	206	371	353	762	2767	2111	199	-153	287	433
1982	1984	1662	190	2517	6256	6193	13080	13080	8650	5229	1201	952	2784
1983	3525	3431	8026	10742	17478	20470	9653	9653	10355	18228	7719	1088	3644
1984	7693	5874	9527	5864	3586	2324	1492	4215	4418	700	257	571	761
1985	1988	1920	113	94	393	367	825	2795	2272	196	-130	269	466
1986	1973	1637	34	162	10765	11271	4656	4656	4210	4334	483	535	677
1987	3546	1667	141	93	198	305	654	2286	1679	-15	-141	321	473
1988	1809	1372	-64	-104	148	209	634	2041	1671	178	134	448	609
1989	1154	1268	145	71	156	-14	647	2490	2468	179	-126	192	437
1990	1290	1263	161	-105	74	217	729	2484	2294	204	235	416	402
1991	1206	1220	173	206	266	219	909	3089	2456	349	282	282	611
Avg	2858	2038	1208	1683	3411	3522	2981	4602	3887	2412	789	492	929

SJR near Stockton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3747	1730	137	172	291	265	562	2064	1452	-149	27	438	390
1977	2774	2159	114	190	232	279	397	1564	1643	197	-28	417	601
1978	1188	1383	47	806	2754	4579	7086	7086	5703	3672	770	434	843
1979	4194	2259	209	1223	3105	3168	2512	6201	6866	823	127	364	622
1980	2863	1716	201	5105	8750	6049	2909	6981	3594	3685	1383	497	906
1981	4602	2009	76	267	367	392	716	2721	2036	75	-276	204	387
1982	1960	1654	202	2650	6299	6279	13087	13087	8579	5135	1084	874	2758
1983	3501	3481	8062	10882	17590	20625	9659	9660	10293	18116	7604	1008	3602
1984	7658	5895	9598	5873	3600	2298	1439	4161	4336	585	136	490	709
1985	1963	1932	113	111	394	373	764	2735	2187	77	-247	193	427
1986	1941	1532	54	213	10950	11200	4629	4629	4141	4221	366	452	640
1987	3508	1639	117	113	240	311	587	2219	1597	-129	-256	239	422
1988	1774	1356	-76	-55	140	177	597	2004	1608	75	-2	363	557
1989	1115	1248	133	80	166	7	578	2422	2390	70	-257	110	412
1990	1263	1246	132	-93	89	183	668	2422	2256	88	105	332	352
1991	1169	1192	149	212	256	257	857	3037	2392	245	154	201	557
Avg	2826	2027	1204	1734	3451	3528	2940	4562	3817	2299	668	414	887

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

SJR @ Rindge Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1883	376	-818	-433	-299	-323	245	1367	773	-924	-876	-98	-309
1977	1188	1074	-529	-216	-89	-41	55	923	1110	-268	-416	31	-1
1978	630	821	-738	-177	1534	3424	5887	5887	4718	2382	-195	-424	-209
1979	2354	965	-616	-105	1824	1845	1878	4693	5264	-218	-1284	-528	-349
1980	1445	376	-935	3701	7113	4801	2261	5373	2824	2379	528	-280	-195
1981	2847	743	-872	-806	-523	-547	304	1813	1368	-668	-1723	-876	-532
1982	754	98	-948	1508	4742	5183	11223	11223	7035	3522	111	-187	1160
1983	2022	2141	6550	9971	15850	18333	8307	8306	8755	15409	5681	-399	2283
1984	5843	5023	8456	5103	2869	1456	939	2998	3131	-389	-1354	-302	-290
1985	627	348	-1014	-859	-510	-277	381	1864	1315	-670	-1709	-976	-462
1986	681	541	-865	-831	9103	9454	3770	3770	3346	2920	-191	-344	-358
1987	1913	613	-690	-746	-589	-495	228	1448	1206	-831	-1638	-664	-243
1988	756	723	-1075	-1127	-346	-218	296	1346	962	-704	-668	0	-45
1989	517	460	-412	-574	-326	-1077	58	1445	1513	-688	-1772	-1203	-484
1990	237	536	-318	-1177	-450	-282	319	1631	1587	-544	-444	-36	-283
1991	506	579	-222	-69	58	-642	453	2093	1617	-121	-277	-560	-137
Avg	1513	964	310	836	2498	2537	2288	3511	2908	1287	-389	-428	-28

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-3819	-4485	-4525	-1153	-274	-644	1806	1805	448	-2686	-568	1051	327
1977	-733	-2111	-2506	-355	1357	652	1088	1080	1986	248	1927	1792	1004
1978	2670	678	-3450	2419	3601	9801	13093	13096	8630	1278	1187	200	596
1979	-457	-3430	-3657	-1769	-3780	1848	5251	5244	4649	-2487	-2698	-182	-659
1980	3	-4720	-5429	11447	20504	10235	6020	6009	6535	1984	3006	923	-438
1981	328	-3645	-4659	-4069	-1973	-1610	2499	2493	2384	-2298	-3906	-1666	-678
1982	-122	-4072	847	7659	15716	18100	35284	35281	15367	2441	2036	164	2117
1983	-149	3747	19005	32734	49547	62021	24321	24320	23289	29743	9451	-649	2514
1984	5398	19185	32826	16947	9898	4778	3942	3931	3468	-2099	-2607	1072	-560
1985	-858	-3543	-5200	-4556	-2359	24	2551	2566	1020	-2273	-3901	-2103	-498
1986	405	-2245	-4428	-4017	41662	27766	8754	8755	7274	2738	3227	1033	-306
1987	-172	-2384	-3542	-3651	-2286	-581	1808	1801	3664	-2351	-3425	-616	567
1988	566	280	-5270	-5009	-128	216	1864	1867	965	-2445	676	1861	1003
1989	2346	-1406	-1715	-2578	-147	-2954	1634	1629	1324	-2384	-4229	-3059	-311
1990	-91	-661	-818	-5872	-863	-51	2036	2029	1959	-1312	1328	1807	673
1991	2125	-185	-285	683	2599	-1984	2417	2409	1535	990	1940	-89	552
Avg	414	-562	450	2429	8790	7976	7148	7145	5281	1193	215	96	294

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Old River @ Head

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0	0	1820	1470	1811	1792	1502	0	0	675	296	228	809
1977	0	0	1489	1122	1067	1159	1167	0	0	185	577	192	385
1978	0	0	1441	2843	4733	6807	9095	9095	7713	4270	1963	1173	1839
1979	0	0	1860	3223	4805	4949	3688	0	0	2145	1284	1103	1319
1980	0	0	2086	6892	10600	7975	4072	0	4898	4133	2216	1165	1617
1981	0	0	1728	2149	2291	2254	2005	0	0	998	807	497	1010
1982	0	0	2010	4327	8220	8078	14683	14683	10198	5238	2123	1929	3151
1983	5078	5228	10006	12444	18386	20785	11512	11512	12224	19174	7195	2225	3849
1984	0	7649	11349	7615	5146	3999	2722	0	0	1628	1353	1184	1420
1985	0	0	1962	1774	2321	2036	1956	0	0	999	825	513	1018
1986	0	0	1606	2047	13456	14026	6337	6337	5826	4722	1042	1135	1294
1987	0	0	1643	1588	1823	2000	1632	0	0	640	748	411	887
1988	0	0	1296	1325	1182	1147	1407	0	0	336	95	153	399
1989	0	0	1137	1145	1170	1632	1843	0	0	320	862	524	926
1990	0	0	1004	1324	1274	1170	1755	0	0	279	102	110	805
1991	0	0	964	923	897	2113	2179	0	0	163	99	230	489
Avg	317	805	2713	3263	4949	5120	4222	2602	2554	2869	1349	798	1326

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-576	34	324	197	264	314	-544	-641	-608	274	-453	-529	312
1977	-586	-7	117	116	105	188	-511	-618	-660	-603	257	-612	-466
1978	-677	-14	120	478	725	1036	-134	-134	-139	1168	514	404	489
1979	-621	-6	293	510	748	757	-406	-650	-611	567	421	385	450
1980	-602	-100	337	1039	1734	1188	-387	-652	-313	1130	584	404	534
1981	-644	-6	305	379	358	456	-530	-629	-634	355	292	-365	363
1982	-605	-5	332	659	1235	1262	2563	2563	-17	1448	559	511	851
1983	-284	766	1592	2204	3460	4048	1908	1908	2021	3439	2012	595	1053
1984	-639	1166	1877	1167	775	631	-453	-641	-618	525	438	407	476
1985	-595	-76	228	305	396	375	-493	-623	-592	361	298	-352	366
1986	-597	-80	219	363	2364	2437	-269	-269	-239	1299	371	395	442
1987	-642	28	295	260	299	337	-478	-616	-702	268	287	-403	335
1988	-607	-13	231	218	124	112	-508	-634	-623	-493	-568	-634	-465
1989	-658	24	169	227	222	352	-450	-603	-597	-501	316	-330	340
1990	-653	-28	153	244	85	222	-470	-616	-661	-526	-610	-643	312
1991	-649	33	72	78	48	316	-498	-632	-628	-625	-654	-481	-408
Avg	-602	107	416	528	809	877	-104	-218	-351	505	254	-78	312

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Old River near DMC intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-586	20	308	195	254	247	-617	-712	-729	120	-607	-600	261
1977	-603	-20	105	110	85	139	-614	-725	-725	-762	86	-720	-508
1978	-706	-24	112	511	754	843	-145	-145	-242	962	349	285	421
1979	-657	-13	281	523	754	742	-460	-700	-717	386	266	275	372
1980	-622	-111	331	1058	1788	1181	-447	-709	-414	935	439	293	459
1981	-673	-19	295	382	346	445	-605	-702	-743	177	129	-476	296
1982	-626	-7	334	713	1234	1206	2561	2561	-111	1264	400	395	797
1983	-292	789	1610	2323	3527	4172	1899	1899	1935	3273	1811	474	969
1984	-664	1170	1924	1164	774	611	-522	-706	-726	362	276	291	398
1985	-609	-73	223	301	385	357	-580	-712	-723	182	142	-457	309
1986	-629	-84	213	368	2485	2286	-308	-308	-338	1086	212	271	389
1987	-682	11	282	252	296	302	586	-721	-833	105	131	-516	256
1988	-634	-23	225	221	114	78	-591	-714	-720	-654	-744	-739	-527
1989	-693	14	161	216	212	318	-566	-718	-721	-671	135	-431	304
1990	-677	41	140	233	50	165	579	-719	-703	-708	-774	746	239
1991	-678	18	61	70	35	249	-576	-705	-719	-776	-822	-586	-478
Avg	-627	100	413	540	818	834	-171	-284	-452	330	89	-187	247

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-10415	-8987	-7703	-4972	-4531	-4319	-1084	-2178	-2482	-4477	-5727	-2649	-4158
1977	-9213	-6184	-5125	-3303	-2170	-1958	-1380	-2231	-1341	-1612	-1163	-1143	-3051
1978	-2277	-2418	-6539	-8384	-7193	-4432	207	207	591	-4008	-5098	-4963	-6582
1979	-9360	-7868	-6471	-8304	-7235	-7035	-1083	-3759	-3420	-5409	-9767	-5548	-6185
1980	-7749	-8906	-9272	-5607	-2861	-2470	-691	-3642	-468	-4125	-3498	-4300	-6941
1981	-8264	-7875	-7755	-9137	-7108	-7807	-1724	-3185	-1710	-3822	-10516	-7366	-6061
1982	-7114	-10824	-9302	-7349	-4658	-2062	2913	2913	145	-5675	-4846	-6357	-8876
1983	-7171	-6936	-2121	5275	8727	10124	1657	1656	1630	3860	-5189	-9014	-5529
1984	-4823	784	2819	1291	-1371	-3781	-1373	-3349	-3133	-5136	-10309	-4386	-6255
1985	-8216	-10819	-9362	-8409	-7205	-5156	-1359	-2776	-3234	-3906	-10652	-8157	-5787
1986	-7534	-6218	-7807	-9121	-887	-142	-122	-122	109	-3366	-2070	-4445	-6471
1987	-8352	-6281	-6479	-7406	-7035	-6661	-1415	-2599	-272	-3825	-10021	-5854	-3763
1988	-5765	-3187	-8497	-9718	-3846	-2808	-1085	-2109	-2232	-4547	-3568	-1011	-3158
1989	-2768	-4694	-4264	-5655	-4065	-9645	-2700	-4043	-3043	-4190	-10842	-9335	-5961
1990	-6418	-3969	-3311	-9569	-4794	-3406	-1261	-2535	-1774	-3288	-2386	-1100	-3627
1991	-3295	-3145	-2558	-2021	-1032	-7759	-1352	-2935	-2221	-959	-1301	-4655	-3844
Avg	-6796	-6095	-5859	-5774	-3579	-3707	-741	-1918	-1428	-3405	-6060	-5018	-5391

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Old River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-6457	-5553	-4752	-3042	-2777	-2673	-750	-1431	-1643	-2858	-3695	-1719	-2624
1977	-5722	-3831	-3172	-2004	-1321	-1205	-927	-1458	-878	-1108	-853	-800	-1934
1978	-1453	-1485	-4021	-5008	-4256	-2507	295	295	429	-2381	-3185	-3142	-4014
1979	-5796	-4855	-3986	-5025	-4315	-4224	-666	-2329	-2150	-3311	-6156	-3513	-3876
1980	-4808	-5505	-5704	-3226	-1373	-1330	-415	-2248	-277	-2425	-2192	-2743	-4320
1981	-5129	-4866	-4782	-5587	-4347	-4769	-1116	-2023	-1145	-2446	-6657	-4640	-3803
1982	-4423	-6678	-5701	-4278	-2630	985	2281	2281	235	-3405	-3037	-3928	-5358
1983	-4367	-4127	-986	3779	6094	7099	1410	1410	1341	2929	-3062	-5545	-3303
1984	-2974	691	2117	1017	-700	-2263	-883	-2110	-2001	-3206	-6493	-2802	-3916
1985	-5100	-6666	-5758	-5146	-4411	-3144	-896	-1775	-2086	-2489	-6731	-5115	-3629
1986	-4687	-3843	-4803	-5568	-7	376	-1	-2	89	-1958	-1408	-2844	-4034
1987	-5189	-3884	-3995	-4534	-4298	-4075	-951	-1688	-312	-2440	-6335	-3708	-2393
1988	-3610	-1974	-5245	-5954	-2357	-1737	-734	-1371	-1449	-2882	-2377	-732	-2027
1989	-1758	-2899	-2627	-3460	-2479	-5917	-1712	-2548	-1961	-2657	-6842	-5827	-3716
1990	-4003	-2450	-2041	-5880	-2945	-2098	-847	-1640	-1106	-2138	-1624	-785	-2321
1991	-2085	-1942	-1573	-1218	-613	-4733	-861	-1845	-1434	-695	-943	-2978	-2436
Avg	-4223	-3742	-3564	-3446	-2046	-2137	-423	-1155	-897	-2092	-3849	-3176	-3357

Old River near Franks Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-5380	-4656	-4081	-3530	-3523	-3452	-2480	-2933	-2922	-3081	-4429	-3186	-3729
1977	-5821	-3882	-3342	-2940	-2839	-2643	-2560	-2912	-2659	-2510	-2862	-2705	-3373
1978	-3434	-2831	-3790	-5467	-5254	-5183	-3916	-3916	-3038	-3513	-4560	-4296	-4657
1979	-5972	-4372	-3735	-4703	-5359	-5026	-3083	-4183	-4060	-3515	-5820	-4389	-4472
1980	-5296	-4567	-4529	-6009	-6294	-4502	-3076	-4290	-3204	-3776	-4094	-4053	-4837
1981	-5548	-4359	-4069	-4673	-4246	-4645	-2870	-3482	-2962	-2982	-5928	-4945	-4408
1982	-5011	-5489	-5713	-5998	-6653	-5900	-6938	-6938	-4522	-4679	-4551	-4766	-6119
1983	-4672	-5284	-6141	-5275	-6700	-7755	-5259	-5259	-5424	-5411	-6049	-5789	-4493
1984	-4820	-5053	-6547	-4241	-4127	-4222	-3021	-3833	-3802	-3535	-6091	-4142	-4536
1985	-5309	-5557	-4606	-4288	-4242	-3833	-2749	-3338	-3358	-3008	-5963	-5175	-4307
1986	-5161	-3912	-4113	-4693	-9291	-6576	-3297	-3298	-3088	-3603	-3614	-4176	-4651
1987	-5515	-3934	-3753	-4047	-4147	-4357	-2634	-3122	-2542	-2960	-5781	-4461	-3618
1988	-4495	-3041	-4235	-4724	-3245	-2901	-2468	-2889	-2888	-3172	-3736	-2657	-3379
1989	-3576	-3420	-3155	-3531	-3315	-5172	-3159	-3719	-3333	-3155	-6078	-5577	-4390
1990	-4707	-3252	-2927	-4518	-3521	-3159	-2602	-3127	-2800	-2911	-3325	-2688	-3540
1991	-3757	-2989	-2708	-2603	-2560	-4563	-2748	-3406	-2985	-2326	-2954	-3987	-3679
Avg	-4905	-4162	-4215	-4453	-4707	-4618	-3304	-3790	-3349	-3384	-4740	-4187	-4262

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Middle River @ Undine Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-254	-31	42	35	55	68	-222	-253	-211	-211	-162	-213	-222
1977	-249	-24	29	30	40	57	-207	-234	-257	-190	-239	-216	-195
1978	-246	0	20	86	250	466	-19	-19	-60	583	290	-156	254
1979	-252	-33	45	108	262	278	-160	-271	-238	294	-125	-168	-152
1980	-254	-44	42	473	836	580	-148	-275	-79	562	326	-162	-114
1981	-254	-32	37	41	60	62	-228	-265	-233	-172	-171	-163	-192
1982	-253	-48	41	215	599	596	1290	1290	106	745	310	271	423
1983	-76	308	778	1069	1745	2051	947	947	1012	1790	1081	298	536
1984	-252	578	949	575	335	213	-181	-257	-232	-113	-113	-156	-135
1985	-252	-53	26	28	65	61	-209	-256	-229	-179	-172	-165	-193
1986	-251	-34	23	35	1159	1197	-42	-42	-19	655	172	-162	-161
1987	-254	-26	40	35	94	54	-204	-246	-230	215	-188	-177	-208
1988	-246	-3	16	3	30	41	-233	-266	-241	-182	-184	-219	-189
1989	-242	-15	34	30	32	22	-215	-260	-228	-181	-167	-167	-209
1990	-256	-9	38	8	19	50	-208	-254	-259	-172	-189	-223	-217
1991	-242	4	32	32	39	39	-208	-258	-235	198	-201	-193	-177
Avg	-240	34	137	175	348	365	-13	-55	-95	176	-5	-123	-72

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-300	-83	-16	3	6	-21	-281	-311	-350	-381	-325	-289	-277
1977	-309	-76	-24	2	-9	-10	-304	-333	-306	-355	-401	-321	-256
1978	-308	-46	-31	97	253	485	2	2	-36	401	116	-270	182
1979	-321	-78	-11	101	255	245	-205	-315	-338	107	-287	-273	-224
1980	-303	-95	0	483	856	547	-190	-314	-165	393	172	-268	-180
1981	-320	-87	-17	30	25	45	-273	-308	-333	-358	-347	-278	-259
1982	-302	-88	6	235	590	627	1271	1271	10	587	143	158	365
1983	-125	279	746	1117	1762	2099	927	927	934	1619	899	178	464
1984	-311	534	928	556	324	164	-246	-322	-345	-288	-284	-268	-212
1985	-301	-100	-18	17	34	34	-272	-316	-340	-355	-339	-273	-254
1986	-305	-74	-18	28	1191	1212	-76	-76	-109	474	-337	-275	-217
1987	-320	-79	-13	0	16	22	-284	-325	-353	-384	-339	-283	-282
1988	-303	-54	-35	-5	-10	-28	-271	-302	-325	-339	-363	-333	-263
1989	-308	-65	-13	6	11	-9	-281	-322	-340	-341	-340	-274	-255
1990	-307	-60	-19	-21	-20	-13	-273	-317	-306	-356	-359	-334	-292
1991	-305	-49	-22	0	-13	23	-267	-315	-331	-353	-369	-301	-254
Avg	-297	-14	90	166	329	339	-64	-105	-190	4	-173	-232	-138

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Middle River @ Victoria Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-3829	-3250	-2779	-1850	-1707	-1663	-671	-1078	-1223	-1866	-2383	-1264	-1771
1977	-3442	-2326	-1923	-1280	-909	-839	-794	-1111	-771	-913	-793	-734	-1383
1978	-1130	-1020	-2394	-2895	-2427	-1391	71	71	102	-1282	-1969	-2075	-2363
1979	-3507	-2880	-2367	-2878	-2445	-2403	-587	-1600	-1531	-1957	-3676	-2258	-2417
1980	-2959	-3229	-3269	-1773	-598	-680	-439	-1561	-368	-1323	-1381	-1842	-2638
1981	-3142	-2891	-2793	-3195	-2553	-2763	-863	-1408	-941	-1646	-3972	-2856	-2395
1982	-2751	-3855	-3293	-2467	-1407	-456	1786	1786	33	-1848	-1863	-2324	-2975
1983	-2596	-2342	-435	2540	4270	5083	1128	1128	1079	2254	-1522	-3174	-1836
1984	-2015	474	1494	678	-411	-1361	-726	-1474	-1444	-2016	-3856	-1875	-2436
1985	-3103	-3859	-3307	-2964	-2580	-1895	-743	-1275	-1473	-1668	-4008	-3107	-2300
1986	-2892	-2334	-2804	-3185	332	556	-147	-148	-135	-1033	-1120	-1901	-2500
1987	-3168	-2364	-2370	-2655	-2525	-2410	-778	-1225	-408	-1657	-3800	-2371	-1644
1988	-2309	-1294	-3038	-3398	-1483	-1143	-651	-1034	-1105	-1891	-1677	-687	-1424
1989	-1302	-1822	-1631	-2072	-1539	-3392	-1210	-1711	-1402	-1790	-4088	-3503	-2349
1990	-2526	-1572	-1315	-3363	-1808	-1347	-713	-1195	-913	-1491	-1251	-722	-1600
1991	-1482	-1282	-1056	-843	-498	-2762	-733	-1330	-1106	-662	-844	-1985	-1663
Avg	-2635	-2240	-2080	-1975	-1143	-1179	-379	-823	-725	-1299	-2388	-2042	-2106

Middle River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-6955	-5947	-5099	-3329	-3061	-2988	-1048	-1775	-2038	-3427	-4162	-2121	-3085
1977	-6205	-4149	-3443	-2265	-1591	-1480	-1288	-1852	-1250	-1564	-1284	-1191	-2371
1978	-1825	-1783	-4353	-6378	-4641	-2835	-133	-133	11	-2889	-3740	-3708	-4549
1979	-6361	-5232	-4319	-5389	-4702	-4641	-994	-2789	-2686	-3968	-6753	-4027	-4356
1980	-5266	-5893	-6072	-3620	-1707	-1633	-736	-2719	-680	-2989	-2660	-3244	-4817
1981	-5632	-5244	-5127	-5950	-4680	-5120	-1440	-2409	-1550	-3058	-7264	-5177	-4283
1982	-4857	-7111	-6122	-4646	-3040	-1262	2042	2042	-286	-3894	-3534	-4443	-5884
1983	-4850	-4533	-1333	3714	6105	7191	1195	1195	1009	2517	-3490	-6126	-3737
1984	-3487	456	1918	822	-948	-2563	-1199	-2526	-2491	-3847	-7107	-3305	-4403
1985	-5546	-7103	-6133	-5483	-4743	-3433	-1202	-2149	-2536	-3102	-7338	-5669	-4103
1986	-5132	-4180	-5145	-5922	-349	66	-349	-349	-309	-2485	-1876	-3352	-4517
1987	-5673	-4234	-4316	-4861	-4625	-4405	-1257	-2049	-530	-3054	-6926	-4217	-2847
1988	-3985	-2250	-5583	-6313	-2632	-2001	-1022	-1704	-1851	-3448	-2819	-1096	-2416
1989	-2129	-3226	-2914	-3747	-2749	-6300	-2097	-2988	-2406	-3281	-7514	-6459	-4188
1990	-4415	-2769	-2321	-6231	-3236	-2398	-1145	-1999	-1496	-2655	-2071	-1157	-2743
1991	-2455	-2249	-1853	-1470	-856	-5105	-1222	-2279	-1855	-1103	-1367	-3457	-2892
Avg	-4673	-4090	-3888	-3754	-2341	-2432	-743	-1530	-1309	-2640	-4369	-3672	-3824

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-4968	-4711	-4453	-3387	-3219	-3211	-1972	-2130	-2427	-3410	-3739	-2460	-3003
1977	-4554	-3599	-3490	-2761	-2380	-2330	-2167	-2281	-1917	-2354	-2101	-1967	-2579
1978	-2223	-2320	-4028	-4255	-3619	-2252	-204	-205	-505	-2534	-3402	-3414	-3819
1979	-4473	-4226	-3999	-4336	-3585	-3639	-1561	-2041	-1946	-3583	-5193	-3584	-3722
1980	-4012	-4688	-4997	-2571	-788	-1448	-1354	-1885	-1240	-2557	-2646	-3094	-3929
1981	-3977	-4272	-4474	-4853	-4123	-4320	-2130	-2372	-2034	-3188	-5547	-4289	-3704
1982	-3888	-5356	-4911	-3461	-1979	-931	2326	2326	-34	-3050	-3201	-3741	-4279
1983	-3728	-3474	-738	2708	5289	668	1038	1038	979	3029	-2389	-4674	-3082
1984	-2376	-133	1504	12	-1391	-2585	-1868	-2214	-2223	-3528	-5380	-3137	-3737
1985	-4269	-5279	-5013	-4627	-4151	-3387	-2000	-2224	-2586	-3207	-5577	-4561	-3591
1986	-4054	-3701	-4470	-4829	-863	663	-804	-804	-938	-2215	-2341	-3167	-3788
1987	-4151	-3729	-4003	-4272	-4095	-3933	-2083	-2261	-1538	-3215	-5351	-3724	-2866
1988	-3388	-2570	-4745	-5100	-2987	-2631	-1942	-2086	-2280	-3382	-2974	-1927	-2595
1989	-2399	-3184	-3184	-3648	-3041	-5043	-2551	-2771	-2476	-3320	-5718	-5049	-3630
1990	-3712	-2914	-2844	-5100	-3321	-2867	-2002	-2197	-1955	-2950	-2536	-1962	-2804
1991	-2576	-2622	-2570	-2307	-1935	-4343	-2021	-2284	-2164	-2069	-2139	-3279	-2888
Avg	-3672	-3549	-3526	-3299	-2154	-2224	-1331	-1524	-1580	-2596	-3765	-3377	-3376

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	802	-33	1421	1247	1475	1312	2158	782	641	397	686	861	664
1977	801	3	1314	990	902	842	1734	700	840	751	332	869	979
1978	870	-9	1282	2338	3799	5288	9177	9177	7643	2269	930	767	1023
1979	815	19	1491	2653	3819	3893	4170	835	684	1029	767	740	933
1980	826	119	1689	5437	8131	6196	4522	842	5150	2207	1108	777	1120
1981	842	9	1358	1749	1865	1726	2660	791	703	553	449	865	760
1982	825	41	1623	3524	6401	6266	10822	10822	9965	2843	1035	999	1847
1983	5408	4176	7634	9446	13299	14976	8633	8633	9064	13694	3890	1180	2196
1984	846	5895	8553	5892	4046	3123	3257	799	683	981	796	778	991
1985	819	122	1689	1458	1849	1581	2539	761	622	560	474	884	781
1986	805	98	1341	1669	10072	10345	6590	6590	5938	2516	617	738	956
1987	838	-37	1281	1308	1498	1559	2165	712	755	361	442	832	668
1988	805	-10	1024	1128	1018	934	2035	786	726	786	596	844	960
1989	839	-36	910	895	912	1164	2350	704	648	766	472	866	758
1990	868	5	781	1078	1109	809	2292	729	859	730	664	817	622
1991	835	-71	831	818	793	1606	2775	779	731	769	718	752	974
Avg	1115	643	2139	2602	3812	3851	4242	2778	2853	1951	874	848	1015

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Victoria Canal

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3504	3138	2730	1842	1693	1614	342	719	808	1381	1955	934	1467
1977	3102	2221	1869	1279	878	804	449	739	444	461	292	358	1094
1978	788	949	2340	3033	2698	1862	-78	-78	-184	1603	1999	1746	2520
1979	3154	2778	2326	2988	2713	2635	361	1263	1143	1975	3297	1930	2157
1980	2628	3106	3247	2281	1492	1211	230	1224	161	1646	1475	1521	2426
1981	2789	2775	2747	3227	2565	2808	564	1072	555	1187	3530	2521	2101
1982	2422	3746	3280	2750	1999	1120	-523	-523	-73	2374	1921	2432	3323
1983	2445	2617	1180	-1358	-2473	-2922	-205	-205	-187	-722	2348	3300	2281
1984	1673	39	-556	-124	737	1502	446	1118	1039	1639	3475	1549	2186
1985	2776	3736	3267	2986	2600	1923	443	930	1075	1218	3577	2781	2014
1986	2557	2237	2764	3224	913	670	51	51	-21	1431	692	1567	2255
1987	2817	2255	2328	2647	2541	2421	461	866	-2	1175	3365	2033	1329
1988	1974	1214	2978	3403	1456	1088	357	709	743	1470	1201	292	1123
1989	960	1732	1593	2072	1547	3380	902	1358	1014	1357	3639	3170	2068
1990	2190	1486	1266	3338	1773	1309	414	850	592	1046	782	327	1273
1991	1144	1205	1004	831	466	2792	441	988	736	224	366	1625	1372
Avg	2308	2202	2148	2151	1475	1514	291	693	490	1217	2120	1755	1937

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1754	-1354	-1041	-690	-657	-643	-319	-609	-611	-817	-973	-581	-775
1977	-1570	-1026	-704	-480	-372	-352	-350	-578	-466	-454	-416	-406	-648
1978	-566	-523	-884	-1189	-1237	-1066	-875	-875	-660	-1073	-986	-923	-1124
1979	-1737	-1252	-893	-1217	-1285	-1278	-522	-1213	-1257	-1028	-1517	-968	-1047
1980	-1382	-1340	-1243	-1308	-1344	-975	-510	-1279	-580	-1111	-832	-836	-1176
1981	-1616	-1236	-1039	-1222	-988	-1083	-423	-799	-573	-759	-1578	-1179	-1010
1982	-1221	-1603	-1310	-1249	-1379	-972	-1300	-1299	-1123	-1356	-976	-1117	-1593
1983	-1355	-1296	-1212	-498	-956	-1335	-921	-921	-1058	-1811	-1579	-1484	-1179
1984	-1457	-627	-781	-508	-609	-788	-457	-967	-982	-978	-1599	-849	-1069
1985	-1361	-1628	-1253	-1104	-1003	-742	-376	-748	-778	-766	-1596	-1279	-977
1986	-1277	-986	-1038	-1209	-1532	-1318	-626	-626	-563	-1058	-576	-856	-1087
1987	-1523	-1005	-883	-981	-955	-935	-360	-674	-306	-742	-1520	-990	-732
1988	-1023	-605	-1114	-1255	-558	-442	-308	-581	-582	-820	-709	-380	-648
1989	-615	-779	-606	-753	-577	-1283	-544	-892	-771	-795	-1652	-1442	-994
1990	-1072	-694	-496	-1233	-658	-522	-346	-683	-566	-655	-578	-389	-702
1991	-683	-590	-410	-337	-241	-1056	-394	-804	-657	-355	-444	-836	-749
Avg	-1263	-1034	-932	-952	-897	-924	-539	-847	-721	-911	-1096	-907	-969

Department of Water Resources, Delta Modeling Section

Table 2-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 1C

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-2418	-1668	-1066	-442	-372	-329	331	-241	-210	-521	-1031	-296	-702
1977	-2230	-1037	-421	-27	185	249	270	-183	20	144	57	58	-442
1978	-300	-71	-783	-1638	-1633	-1383	-897	-897	-361	-1063	-1090	-990	-1379
1979	-2516	-1473	-778	-1492	-1746	-1640	-116	-1428	-1470	-953	-2119	-1080	-1231
1980	-1854	-1629	-1449	-1903	-1992	-1064	-96	-1542	-237	-1191	-794	-833	-1490
1981	-2273	-1440	-1066	-1485	-1021	-1277	90	-637	-185	-436	-2232	-1484	-1167
1982	-1564	-2181	-1760	-1849	-2110	-1410	1923	-1923	-1335	-1651	-1081	-1373	-2288
1983	-1677	-1727	-1757	-522	-1073	-1395	-1148	-1148	-1366	-1995	-2143	-2084	-1376
1984	-1847	-611	-1159	-291	-423	-684	17	-964	-973	-891	-2287	-856	-1275
1985	-1840	-2255	-1502	-1238	-1052	-581	189	-534	-565	-456	-2268	-1677	-1103
1986	-1671	-976	-1086	-1482	-2787	-1949	-364	-365	-203	1079	-320	-874	-1329
1987	-2122	-1008	-768	-1000	-981	-983	239	-376	316	-397	-2109	-1116	-614
1988	-1184	-240	-1219	-1564	-176	69	336	-204	-185	-576	-501	111	-438
1989	-406	-570	-238	-555	-229	-1684	-136	-809	-557	-531	-2346	-1986	-1146
1990	-1295	-407	-16	-1469	-423	-103	264	-395	-173	-262	-245	91	-553
1991	-536	-202	150	262	427	-1238	164	-630	-327	298	7	802	-645
Avg	-1608	-1093	-932	-1043	-963	-963	-174	-767	-488	-723	-1281	-949	-1074

Figure 2-3
Output Locations for Monthly Average Electrical Conductivity

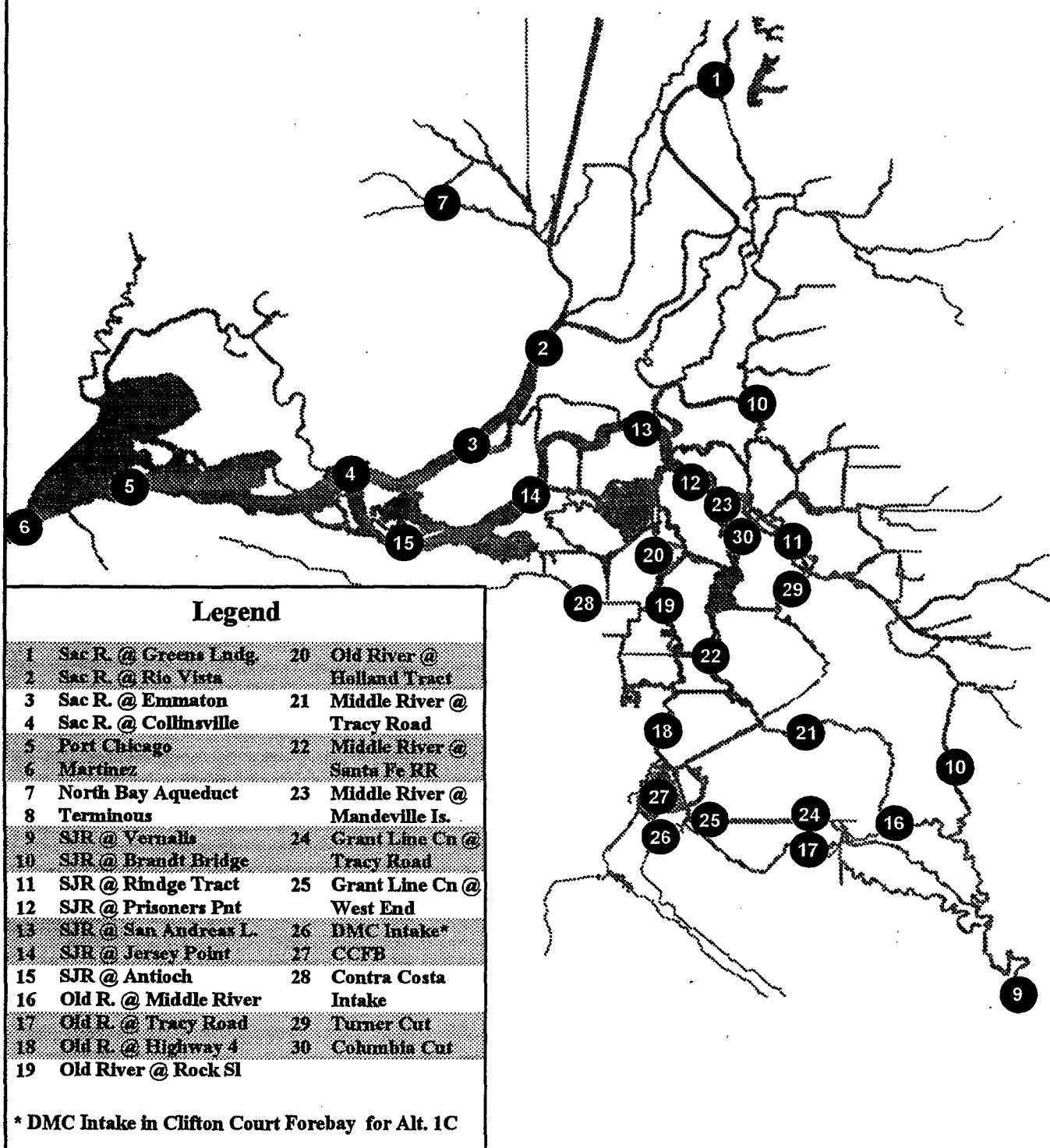


Table 2-4
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1C

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	150	150	150	150	150	150	151	151	151	152	152	152
1977	151	150	150	151	150	151	151	151	152	153	154	151
1978	151	150	152	152	151	151	150	151	152	152	151	151
1979	150	150	150	153	152	150	151	152	152	151	151	151
1980	150	150	151	151	151	150	151	151	152	151	151	150
1981	150	150	150	152	151	151	151	151	151	150	150	150
1982	150	151	151	153	151	152	150	150	150	151	151	150
1983	150	152	151	153	152	151	150	150	150	150	151	150
1984	150	151	151	151	150	150	150	150	151	151	151	151
1985	151	153	151	151	150	150	150	151	151	151	151	151
1986	151	153	152	151	151	150	150	151	151	152	152	151
1987	151	150	150	151	150	150	151	151	151	151	152	152
1988	151	151	151	151	150	151	151	151	151	153	154	152
1989	151	150	150	151	151	150	151	151	152	151	151	150
1990	150	150	150	151	151	151	151	152	152	152	151	151
1991	150	150	150	152	151	152	151	152	152	151	151	151
Avg	150	151	151	152	151	151	151	151	151	151	152	151

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	153	154	155	156	152	152	158	168	163	199	311	323
1977	198	217	234	257	161	172	172	176	171	236	356	377
1978	288	242	179	159	156	155	155	158	162	166	175	201
1979	196	176	181	161	161	155	156	160	159	161	184	224
1980	222	162	155	155	156	153	157	158	158	161	169	189
1981	213	179	165	158	156	156	156	158	161	164	198	259
1982	246	154	153	162	153	161	152	153	153	156	163	155
1983	152	157	154	160	157	154	152	152	151	154	155	153
1984	153	152	154	153	153	152	153	154	154	156	175	207
1985	203	158	158	160	154	154	154	154	160	165	197	271
1986	244	205	169	159	153	151	154	155	159	168	174	196
1987	208	193	184	159	153	152	155	158	164	171	227	311
1988	271	248	161	156	155	157	164	171	166	219	368	371
1989	270	219	265	207	160	154	154	160	167	168	190	252
1990	237	222	224	158	162	160	162	180	170	224	348	338
1991	257	237	285	277	172	162	160	166	170	214	235	318
Avg	219	192	186	175	157	156	157	161	162	180	227	259

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

Sacramento River @ Emmaton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	302	318	634	531	256	206	400	787	655	1144	2562	3155
1977	1906	2088	2518	2631	799	779	981	976	698	1396	2744	3410
1978	2519	2077	1268	233	160	158	163	177	191	269	759	1545
1979	1773	1509	1609	436	175	158	163	193	204	330	1027	1976
1980	1998	978	448	165	159	156	166	179	187	284	767	1391
1981	2052	1645	1308	389	175	159	166	217	456	723	1446	2461
1982	2367	317	155	165	156	164	154	155	158	209	583	322
1983	162	158	157	166	158	154	153	153	153	158	207	167
1984	159	157	157	156	157	154	158	170	197	286	735	1574
1985	1797	311	192	362	299	185	190	223	428	707	1415	2491
1986	2276	1636	956	372	156	152	159	170	196	308	645	1315
1987	1874	1786	1709	971	348	172	201	230	437	788	1646	2810
1988	2946	2684	1246	403	229	377	614	850	669	1265	2761	3382
1989	2693	2251	2970	2238	834	197	160	211	447	688	1274	2220
1990	2449	2316	2222	776	406	358	381	880	727	1446	2828	3260
1991	2582	2494	3155	2883	856	204	185	483	762	1428	2167	3144
Avg	1866	1420	1294	805	333	233	275	378	410	714	1473	2164

Sacramento River @ Collinsville

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	979	1509	3035	2147	791	683	1898	3715	2707	3905	6508	7934
1977	7004	7401	8327	8097	3184	3255	4250	4073	2842	4038	6588	7986
1978	6340	5875	4658	469	168	162	177	196	349	904	2890	5094
1979	6614	6142	6145	1205	203	164	186	382	541	1332	3618	5990
1980	6062	3847	1500	207	163	163	178	209	344	954	2803	4807
1981	7037	6622	5300	1066	220	172	275	791	2003	2976	4909	6936
1982	6776	763	157	169	163	172	159	159	171	577	2334	1228
1983	226	162	164	180	159	154	154	157	158	162	611	269
1984	167	166	160	163	164	158	182	270	576	1146	2642	5067
1985	6754	798	503	1713	961	331	587	964	1873	2983	4918	6839
1986	6653	5465	3570	1056	164	154	166	197	425	1038	2448	4534
1987	6784	6861	6459	3886	1022	214	678	880	1902	3237	5051	7190
1988	8649	8409	5303	1213	744	1900	2877	3858	2787	3899	6556	7961
1989	7665	7820	9139	7654	3028	300	184	736	1903	2826	4675	6290
1990	7888	7866	7508	3232	1456	1616	1791	3558	3079	4326	6744	7880
1991	7577	8038	9254	8533	3410	375	405	2189	2918	4188	6311	7876
Avg	5823	4859	4449	2562	1000	623	884	1396	1536	2406	4350	5868

Department of Water Resources, Delta Modeling Section

Table 3-1 (cont.)
Delta Hydrology for Alternative 2B (DWRSIM Study 532)
Water Years 1976 - 1991

(values in cfs)

Delta Channel Depletions

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	732	874	943	49	414	1,382	1,681	3,285	4,151	4,229	1,903	1,328
1977	1,236	807	862	-114	504	1,008	2,185	1,610	4,134	4,294	2,667	1,294
1978	1,269	689	146	-5,009	-1,891	-1,610	420	2,342	4,117	4,229	2,830	1,513
1979	1,382	622	894	-2,179	-2,557	179	1,227	2,374	4,302	4,115	2,618	1,748
1980	862	723	-33	-2,700	-3,601	309	1,210	2,000	3,697	3,773	2,618	1,563
1981	1,334	891	748	-732	198	-293	1,580	2,488	4,453	4,342	2,830	1,513
1982	846	101	520	-4,407	-612	2,911	34	2,342	3,512	4,050	2,667	924
1983	781	-1,126	-829	-4,733	-3,547	-4,635	-50	1,968	4,033	4,050	2,732	1,395
1984	1,203	-17	-2,017	-146	-162	748	1,529	2,716	4,033	4,294	2,749	1,815
1985	813	-437	33	-504	36	-374	1,714	2,797	4,285	4,180	2,618	1,344
1986	1,122	387	49	-1,480	-5,906	-1,269	1,193	2,293	4,067	4,163	2,879	1,227
1987	1,301	908	829	179	-378	114	2,000	2,862	4,067	3,936	2,765	1,714
1988	1,171	672	276	-1,447	342	1,041	1,496	2,196	3,764	4,700	2,879	1,748
1989	1,334	672	618	-114	90	0	1,933	2,716	3,949	4,521	2,749	840
1990	976	756	927	-455	-270	992	1,899	1,155	4,201	4,456	2,830	1,714
1991	1,236	874	813	49	396	-504	1,529	2,049	3,210	4,391	2,700	1,832

Net Delta Outflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	13,509	9,175	9,699	12,928	15,119	12,665	7,793	5,982	6,897	4,000	3,000	3,000
1977	5,460	3,500	3,500	4,726	12,014	6,018	6,962	6,897	6,897	4,000	3,000	3,000
1978	5,454	3,500	5,135	54,258	47,423	63,394	43,425	20,292	11,471	8,000	4,448	3,000
1979	4,000	4,610	4,500	20,543	41,467	34,758	19,423	13,726	10,935	6,500	4,000	3,000
1980	4,264	5,250	9,701	90,482	120,704	56,398	18,954	17,894	11,921	8,000	4,432	3,339
1981	5,105	4,500	5,531	13,512	22,909	27,114	15,076	10,890	5,120	5,000	3,500	3,000
1982	4,000	19,472	74,422	70,083	96,143	83,544	137,742	48,217	18,138	8,000	4,772	8,939
1983	20,564	40,294	85,518	113,207	189,045	254,548	102,735	75,920	81,110	21,988	7,215	23,563
1984	25,138	83,633	156,710	74,203	42,912	35,632	16,258	13,609	10,041	8,000	5,249	3,000
1985	4,432	28,143	11,802	7,389	15,136	17,886	11,907	11,074	5,575	5,000	3,500	3,000
1986	4,000	4,500	6,226	12,713	220,592	143,749	24,135	17,132	10,591	8,000	5,183	3,392
1987	4,211	4,500	4,500	8,128	18,116	24,071	10,125	12,364	5,101	5,000	3,500	3,000
1988	4,000	4,500	6,363	15,773	11,400	7,917	7,757	6,370	6,897	4,000	3,000	3,000
1989	5,455	3,500	3,500	4,730	12,003	32,660	19,882	10,161	5,506	5,000	3,500	3,656
1990	4,000	4,500	4,500	9,169	11,591	9,168	9,844	5,728	6,940	4,000	3,000	3,000
1991	5,439	3,500	3,500	4,744	11,968	23,392	13,309	6,483	6,048	4,000	3,000	3,000

Department of Water Resources, Delta Modeling Section

Table 3-2
Operation of Delta Facilities
under
Alternative 2B

Delta Cross Channel												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	O	X	X	X	X	X	X	X	X	O	O	O
1977	O	X	X	X	X	X	X	X	X	O	O	O
1978	O	X	X	X	X	X	X	X	X	O	O	O
1979	O	X	X	X	X	X	X	X	X	O	O	O
1980	O	X	X	X	X	X	X	X	X	O	O	O
1981	O	X	X	X	X	X	X	X	X	O	O	O
1982	O	X	X	X	X	X	X	X	X	O	O	O
1983	X	X	X	X	X	X	X	X	X	O	O	X
1984	X	X	X	X	X	X	X	X	X	O	O	O
1985	O	X	X	X	X	X	X	X	X	O	O	O
1986	O	X	X	X	X	X	X	X	X	O	O	O
1987	O	X	X	X	X	X	X	X	X	O	O	O
1988	O	X	X	X	X	X	X	X	X	O	O	O
1989	O	X	X	X	X	X	X	X	X	O	O	O
1990	O	X	X	X	X	X	X	X	X	O	O	O
1991	O	X	X	X	X	X	X	X	X	O	O	O

Note: 'X' denotes gates closed, 'O' denotes gates open.

Suisun Marsh Salinity Control Gates												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	O	O	O	O	O	O	O	O	N	N	N	N
1977	O	O	O	O	O	O	O	O	N	N	N	N
1978	N	N	N	N	N	N	N	N	N	N	N	N
1979	O	O	O	O	O	O	O	O	N	N	N	N
1980	N	N	N	N	N	N	N	N	N	N	N	N
1981	O	O	O	O	O	O	O	O	N	N	N	N
1982	N	N	N	N	N	N	N	N	N	N	N	N
1983	N	N	N	N	N	N	N	N	N	N	N	N
1984	N	N	N	N	N	N	N	N	N	N	N	N
1985	O	O	O	O	O	O	O	O	N	N	N	N
1986	N	N	N	N	N	N	N	N	N	N	N	N
1987	O	O	O	O	O	O	O	O	N	N	N	N
1988	O	O	O	O	O	O	O	O	N	N	N	N
1989	O	O	O	O	O	O	O	O	N	N	N	N
1990	O	O	O	O	O	O	O	O	N	N	N	N
1991	O	O	O	O	O	O	O	O	N	N	N	N

Note: 'N' denotes gates not operating, 'O' denotes gates are operating.

Table 3-2 (cont.)
Operation of Delta Facilities
under
Alternative 2B

South Delta Flow Control Structures

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-31)	May	Jun	Jul	Aug	Sep
1976	2	0	0	0	0	0	2	2	2	3B	3A	3A	3B
1977	2	0	0	0	0	0	2	2	2	3A	3B	3A	3A
1978	2	0	0	0	0	0	2	2	2	3C	3C	3B	3C
1979	2	0	0	0	0	0	2	2	2	3C	3B	3B	3B
1980	2	0	0	0	0	0	2	2	2	3C	3C	3B	3B
1981	2	0	0	0	0	0	2	2	2	3B	3B	3A	3B
1982	2	0	0	0	0	0	0	0	2	3C	3C	3C	3C
1983	2	0	0	0	0	0	0	0	0	0	3C	3C	3C
1984	2	0	0	0	0	0	2	2	2	3B	3B	3B	3B
1985	2	0	0	0	0	0	2	2	2	3B	3B	3A	3B
1986	2	0	0	0	0	0	2	2	2	3C	3B	3B	3B
1987	2	0	0	0	0	0	2	2	2	3B	3B	3A	3B
1988	2	0	0	0	0	0	2	2	2	3A	3A	3A	3A
1989	2	0	0	0	0	0	2	2	2	3A	3B	3A	3B
1990	2	0	0	0	0	0	2	2	2	3A	3A	3A	3B
1991	2	0	0	0	0	0	2	2	2	3A	3A	3A	3A

Note: '0' denotes no structures operating, '2' denotes Old River, Middle River operating, '3' series denote all three structures operating: 'A' - GLC with special operation, 'B' - GLC and Old R with special operation, 'C' - GLC, Old River, and Middle River structures with special operation.

Head of Old River Fish Control Structure

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-31)	May	Jun	Jul	Aug	Sep
1976	O	O	N	N	N	N	N	O	O	N	N	N	N
1977	O	O	N	N	N	N	N	O	O	N	N	N	N
1978	O	O	N	N	N	N	N	N	N	N	N	N	N
1979	O	O	N	N	N	N	N	O	O	N	N	N	N
1980	O	O	N	N	N	N	N	O	N	N	N	N	N
1981	O	O	N	N	N	N	N	O	O	N	N	N	N
1982	O	O	N	N	N	N	N	N	N	N	N	N	N
1983	N	N	N	N	N	N	N	N	N	N	N	N	N
1984	O	N	N	N	N	N	N	O	O	N	N	N	N
1985	O	O	N	N	N	N	N	O	O	N	N	N	N
1986	O	O	N	N	N	N	N	N	N	N	N	N	N
1987	O	O	N	N	N	N	N	O	O	N	N	N	N
1988	O	O	N	N	N	N	N	O	O	N	N	N	N
1989	O	O	N	N	N	N	N	O	O	N	N	N	N
1990	O	O	N	N	N	N	N	O	O	N	N	N	N
1991	O	O	N	N	N	N	N	O	O	N	N	N	N

Note: 'N' denotes gates not operating, 'O' denotes gates are operating to make complete closure.

Table 3-2 (cont.)
Operation of Delta Facilities
under
Alternative 2B

Clifton Court Forebay Intake Gate Priority

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	4	4	4	4	4	4	3	3	3	4	4	4
1977	4	4	4	4	4	4	3	3	3	4	4	4
1978	4	4	4	4	4	4	3	3	3	4	4	4
1979	4	4	4	4	4	4	3	3	3	4	4	4
1980	4	4	4	4	4	4	3	3	3	4	4	4
1981	4	4	4	4	4	4	3	3	3	4	4	4
1982	4	4	4	4	4	4	3	3	4	4	4	4
1983	4	4	4	4	4	4	3	3	3	4	4	4
1984	4	4	4	4	4	4	3	3	3	4	4	4
1985	4	4	4	4	4	4	3	3	3	4	4	4
1986	4	4	4	4	4	4	3	3	3	4	4	4
1987	4	4	4	4	4	4	3	3	3	4	4	4
1988	4	4	4	4	4	4	3	3	3	4	4	4
1989	4	4	4	4	4	4	3	3	3	4	4	4
1990	4	4	4	4	4	4	3	3	3	4	4	4
1991	4	4	4	4	4	4	3	3	3	4	4	4

Note: See Figure 7 for description of the values.

Monthly Average Diversion into Clifton Court Forebay (cfs)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	14,322	11,166	9,334	6,727	7,906	7,729	2,830	2,990	6,149	11,182	8,766	7,199
1977	6,333	5,870	5,436	8,919	10,437	1,724	1,896	1,185	1,254	382	1,484	4,540
1978	2,256	2,890	10,260	14,364	14,503	12,774	8,679	6,456	8,614	11,253	14,722	9,510
1979	11,028	10,190	10,049	14,408	14,397	10,861	5,068	4,352	8,525	14,899	13,146	9,563
1980	10,210	11,655	14,508	14,316	14,233	9,042	4,918	5,221	8,702	13,120	11,952	9,852
1981	12,650	9,810	12,112	14,508	9,524	9,926	4,232	1,951	5,453	14,899	12,613	9,130
1982	9,387	14,576	14,507	14,485	12,745	10,226	9,916	9,462	11,982	8,669	10,024	14,813
1983	14,683	14,418	10,039	5,299	5,686	6,223	8,631	8,833	11,959	12,395	13,979	10,723
1984	6,623	6,268	7,071	5,631	6,916	8,962	4,450	3,938	7,870	14,102	11,645	9,690
1985	10,379	14,584	14,507	13,161	11,141	9,001	3,640	4,006	5,610	14,899	12,223	8,820
1986	8,406	6,922	12,101	14,420	14,484	14,414	6,182	5,310	8,186	9,298	11,875	9,378
1987	10,928	8,448	9,932	11,303	8,521	9,554	3,348	2,809	5,238	14,899	12,461	9,503
1988	5,979	3,132	12,693	14,496	6,421	4,923	2,782	2,844	3,851	2,809	1,255	4,503
1989	2,170	6,362	6,890	8,839	950	14,462	5,258	3,798	5,406	14,844	12,767	9,063
1990	8,754	5,382	5,392	14,459	7,650	5,614	3,264	2,474	3,927	2,384	1,327	4,812
1991	3,709	3,678	4,159	3,705	2,255	12,460	3,900	2,833	1,939	1,356	6,316	5,502

Note: Alternative 2B assumes Clifton Court Forebay diversions to meet Banks and Tracy pumping demands.

Table 2-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1C

Port Chicago

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	11050	12823	15509	13657	10000	9971	13052	15897	15397	17521	19757	20814
1977	19638	19946	20595	20017	14542	15293	16298	16334	15442	17500	19798	20764
1978	19043	19280	18356	2795	1219	571	1385	3647	7344	1332	16029	18680
1979	19436	19101	19130	9551	2671	2678	4615	7535	9549	13083	17053	19542
1980	19468	17753	13407	644	165	826	3575	5268	8037	11765	15861	18383
1981	19696	19569	18525	9892	5764	4532	6711	9930	14167	16580	18795	20256
1982	19916	6522	508	492	168	291	166	995	3890	8868	14732	11801
1983	6479	2491	355	187	172	159	154	635	364	2659	8313	5745
1984	4209	434	170	359	1608	2142	4717	7261	10049	12539	15589	18749
1985	19591	6890	8366	12568	10460	7399	9262	10859	14085	16655	18786	20178
1986	19905	19083	17124	11442	410	158	2804	5087	8411	12074	15436	18154
1987	19506	19543	19342	16650	10382	4849	8896	10191	14150	16756	18745	20304
1988	20714	20160	18226	10861	10216	13145	14690	16131	15554	17407	19800	20717
1989	19793	20066	20819	19941	14396	4476	4790	9213	13720	16379	18778	19694
1990	20292	19937	19660	15742	12297	12701	12915	15713	15740	17733	19842	20748
1991	19750	20120	20763	20093	14708	6474	7939	13022	15365	17754	19792	20771
Avg	17405	15232	14428	10306	6824	5354	6998	9232	11329	14163	17319	18456

Martinez

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	17263	18700	20937	19381	16083	15945	18532	21156	21656	23628	25390	26199
1977	24529	24959	25440	24788	19772	20776	21355	21572	21590	23558	25354	26179
1978	24566	25028	24223	6498	3574	2427	3664	7627	12882	17761	22151	24583
1979	24483	24215	24273	15215	15498	6093	9077	12771	15829	19585	23109	25330
1980	25124	23954	20120	2887	671	2596	7456	10489	14304	18124	22110	24312
1981	24765	24591	23732	15813	11427	9519	11948	15387	20264	22858	24750	25875
1982	25483	11974	2711	2004	1533	1646	802	2839	7980	14405	20878	18452
1983	12814	6460	2083	944	303	147	1703	3968	2319	5854	13208	11552
1984	9259	2531	457	1729	4500	5396	9422	13170	16479	19002	21829	24666
1985	24611	12074	13732	17921	16425	13448	14923	16484	20308	22760	24672	25822
1986	25513	24864	23302	18269	881	329	6245	10068	14403	18474	21767	24161
1987	24589	24544	24437	21967	16400	10105	13980	15696	20333	22765	24722	25850
1988	25526	24885	23193	16763	16236	18638	20052	21415	21646	23589	25413	26139
1989	24565	24985	25492	24764	19729	9263	9558	14300	19722	22713	24713	25376
1990	25255	24743	24526	21086	18220	18466	18494	21028	21604	23658	25368	26168
1991	24564	25022	25461	24761	19798	12117	13408	18232	21329	23798	25501	26114
Avg	22682	20221	19007	14674	10753	9182	11289	14138	17041	20158	23183	24174

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

North Bay Aqueduct

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	199	186	177	172	173	173	177	187	200	215	224	222
1977	208	186	173	171	179	184	193	202	220	251	269	253
1978	221	194	187	205	274	284	340	273	243	238	225	201
1979	184	173	168	201	270	317	276	241	238	226	203	188
1980	176	169	178	220	314	393	299	261	226	201	189	180
1981	176	175	174	196	237	221	232	222	201	189	180	178
1982	175	182	200	283	429	362	515	403	249	196	187	185
1983	180	206	251	310	505	588	562	331	222	190	189	190
1984	188	198	249	380	279	229	221	188	183	188	195	203
1985	199	241	274	246	221	196	215	208	194	199	205	208
1986	207	205	210	226	241	294	276	230	210	215	229	232
1987	219	202	184	178	179	183	191	198	217	219	230	226
1988	209	188	180	184	208	211	214	213	229	254	263	248
1989	216	193	177	174	184	195	215	218	232	239	221	193
1990	178	171	169	175	199	228	249	247	250	244	220	204
1991	190	182	178	180	200	216	263	300	265	233	217	204
Avg	195	191	196	219	256	267	277	245	224	219	215	207

Terminous

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	172	174	166	169	165	165	176	197	209	186	184	175
1977	161	172	187	201	189	186	196	216	230	224	209	173
1978	161	174	174	175	169	182	174	214	238	192	171	158
1979	155	162	175	185	187	171	184	226	217	176	161	157
1980	154	163	168	174	170	158	183	181	191	165	157	152
1981	155	166	173	180	193	189	196	201	188	163	157	157
1982	156	162	173	191	157	179	140	142	157	158	155	152
1983	159	175	160	193	168	156	146	139	146	158	156	153
1984	172	154	171	158	151	145	148	156	172	166	166	164
1985	159	192	210	198	166	163	161	171	186	171	166	167
1986	164	186	190	185	151	147	148	158	194	185	175	163
1987	164	175	172	174	170	167	175	195	207	180	177	176
1988	164	173	176	180	178	178	192	205	216	209	207	173
1989	160	167	181	192	195	172	184	212	228	182	163	156
1990	155	169	187	186	210	206	210	251	223	192	175	160
1991	157	173	199	232	238	215	213	223	206	180	161	159
Avg	161	171	179	186	179	174	177	193	201	180	171	162

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1C

SJR @ Vernalis

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	601	629	731	739	748	696	644	638	862	1139	1177	1021
1977	752	645	750	855	928	881	721	618	860	1046	1059	1062
1978	977	910	867	685	436	308	239	233	288	453	639	653
1979	532	565	676	569	396	330	344	363	451	625	704	697
1980	635	677	716	453	222	211	290	336	325	411	596	658
1981	529	572	721	690	640	627	589	588	652	842	1004	929
1982	765	747	745	516	290	234	191	178	240	385	477	415
1983	330	295	242	182	152	131	154	181	155	177	317	367
1984	321	273	205	200	264	332	400	439	506	636	700	683
1985	679	720	719	714	686	643	592	552	637	845	994	914
1986	748	754	817	737	425	166	216	282	299	518	713	704
1987	608	648	760	752	751	693	623	622	864	1083	1071	953
1988	772	786	907	927	937	897	732	620	869	1108	1123	1073
1989	982	943	921	923	942	869	664	514	801	997	990	971
1990	901	922	944	944	930	886	677	482	673	992	1151	1035
1991	930	940	956	968	990	829	577	507	777	1069	1141	1047
Avg	691	689	730	678	609	546	478	447	579	770	866	824

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	607	616	738	730	752	700	649	640	738	1084	1186	1042
1977	764	641	734	837	918	892	737	621	804	1063	1056	1069
1978	983	913	871	700	441	311	240	234	291	453	637	658
1979	537	556	675	578	399	331	344	365	454	623	705	698
1980	639	666	727	460	224	211	289	339	328	409	586	661
1981	533	560	716	703	645	634	595	590	653	664	961	939
1982	773	741	761	526	293	236	192	178	240	381	480	418
1983	331	297	244	187	153	133	153	182	156	177	314	369
1984	322	275	206	200	263	331	399	441	503	630	703	688
1985	679	720	735	719	694	644	597	553	629	681	972	930
1986	757	745	840	754	431	167	215	283	301	500	719	708
1987	615	635	765	750	753	702	628	623	738	757	1060	971
1988	782	773	859	798	908	906	747	624	807	1103	1123	1083
1989	986	945	923	911	936	922	685	522	729	850	957	981
1990	900	920	939	910	922	900	698	487	641	922	1134	1049
1991	929	939	952	966	986	867	587	511	712	1022	1121	1059
Avg	696	684	730	671	607	555	485	450	545	707	857	833

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

SJR @ Rindge Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	578	463	450	527	350	251	453	604	472	364	372	406
1977	690	621	1033	1241	941	596	594	631	480	387	445	542
1978	781	848	700	441	448	342	254	243	308	321	243	273
1979	515	524	962	667	429	345	351	375	337	238	228	265
1980	576	594	625	493	246	216	288	354	348	347	244	254
1981	520	520	1031	691	293	243	470	584	347	290	291	319
1982	627	501	222	530	324	277	201	181	242	264	236	368
1983	337	318	263	210	166	144	156	185	160	180	193	363
1984	327	293	226	208	265	317	379	443	296	206	234	262
1985	522	569	275	289	351	274	472	542	323	290	311	352
1986	618	666	783	513	450	178	211	288	314	299	256	251
1987	581	569	939	942	530	265	449	601	347	309	327	368
1988	658	691	907	709	313	254	537	619	470	404	421	519
1989	738	794	958	1208	1007	333	440	547	345	320	322	338
1990	526	783	864	884	574	358	569	521	425	371	366	385
1991	652	803	849	986	890	400	551	525	417	332	268	371
Avg	578	597	693	659	474	300	398	453	352	308	297	352

SJR @ Prisoners Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	432	324	661	636	326	212	211	275	528	423	475	630
1977	568	944	1583	1502	837	405	359	376	362	341	429	614
1978	514	525	966	445	200	245	253	240	242	211	214	339
1979	423	1016	1487	871	262	191	237	317	242	231	283	425
1980	490	973	835	329	248	206	231	285	236	195	190	290
1981	378	1055	1591	903	252	181	199	253	276	451	516	624
1982	602	565	188	223	254	263	209	177	184	173	183	186
1983	176	189	246	244	192	164	158	185	165	169	167	188
1984	256	271	238	210	213	185	199	256	201	216	231	313
1985	492	582	236	365	435	234	201	217	268	439	547	658
1986	615	899	1140	663	374	185	187	242	235	207	203	282
1987	394	910	1466	1332	637	239	192	274	277	448	507	563
1988	560	743	1437	941	277	218	255	308	498	425	442	611
1989	501	691	1411	1731	1101	343	192	230	291	461	590	652
1990	551	845	1059	1276	591	305	271	318	418	381	419	598
1991	487	606	1051	1132	710	293	233	270	290	290	390	585
Avg	465	696	975	800	432	242	224	264	295	316	362	472

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

SJR @ San Andreas Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	490	365	772	698	343	219	210	291	611	510	663	889
1977	789	1225	1877	1720	894	424	402	380	389	398	594	880
1978	689	640	1146	478	189	194	212	221	224	208	245	463
1979	602	1288	1709	953	252	178	190	247	238	261	356	597
1980	690	1159	889	243	200	180	195	227	211	188	213	391
1981	532	1348	1803	956	248	179	180	203	308	575	686	875
1982	847	642	185	199	183	206	174	161	172	171	203	203
1983	172	172	191	217	181	160	153	162	162	161	169	178
1984	196	202	198	182	177	167	170	193	202	243	269	423
1985	690	671	243	419	478	239	182	192	301	561	726	914
1986	856	1126	1286	711	240	165	169	201	208	200	220	369
1987	550	1176	1712	1483	677	242	179	212	302	574	671	792
1988	795	973	1675	991	278	233	264	312	577	503	616	873
1989	680	908	1724	2006	1193	358	181	195	326	582	782	894
1990	772	1089	1258	1422	615	322	263	286	480	458	600	856
1991	666	789	1302	1330	749	297	204	227	311	350	542	847
Avg	626	861	1123	876	431	235	208	232	314	371	472	653

SJR @ Jersey Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	893	740	1684	1325	562	321	324	684	1372	1242	1550	2196
1977	2480	3093	4161	3454	1601	766	883	714	792	755	1251	1961
1978	1468	1366	2561	864	207	192	211	216	230	269	568	1401
1979	1975	3157	3579	1695	292	183	183	227	318	559	928	1766
1980	1999	2468	1452	296	205	184	190	219	220	222	446	1219
1981	1670	3365	3576	1519	281	184	182	223	678	1558	1907	2411
1982	2361	1157	197	204	195	212	187	166	173	190	444	418
1983	202	175	196	236	196	169	158	168	168	164	224	219
1984	185	209	207	191	184	171	170	191	281	518	574	1265
1985	2210	1271	334	876	849	307	201	259	659	1535	2032	2422
1986	2414	2635	2496	1148	267	179	173	195	212	234	416	1090
1987	1771	3044	3697	2859	1126	298	200	231	640	1594	1743	1965
1988	2192	2356	3529	1543	372	438	488	674	1315	1062	1312	1950
1989	1540	2464	3973	4266	2218	517	185	223	695	1530	2178	2328
1990	2271	2729	2861	2675	996	560	413	482	1121	956	1312	2021
1991	1581	2036	2987	2693	1228	416	215	332	626	717	1523	2148
Avg	1701	2017	2343	1615	674	319	273	325	594	819	1151	1674

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1131	1430	2945	2178	846	618	1299	2758	2620	3210	4852	6254
1977	6067	6619	7742	7162	3118	2439	3214	2881	2341	2769	4543	5971
1978	4553	4432	4512	982	205	184	199	209	315	684	2140	4129
1979	5470	5848	5955	1718	280	177	185	306	522	1198	2841	4907
1980	5101	3887	1705	322	201	180	185	216	305	639	1943	3834
1981	5424	6297	5351	1438	255	180	242	560	1736	2839	4281	5846
1982	5741	1112	178	197	193	205	189	165	175	416	1711	1080
1983	242	171	191	238	202	174	159	167	169	165	498	299
1984	177	201	207	187	179	168	178	238	530	1058	1944	3999
1985	5706	1222	499	1642	1101	367	433	742	1639	2839	4376	5778
1986	5714	5082	3648	1263	279	181	171	196	342	687	1717	3546
1987	5401	6299	6255	4070	1266	273	487	616	1635	3058	4241	5611
1988	6705	6766	5423	1525	659	1457	2024	2808	2655	3007	4557	5945
1989	5394	6558	8194	7364	3329	431	189	547	1676	2711	4294	5366
1990	6356	6751	6543	3552	1486	1357	1332	2331	2756	3148	4686	6037
1991	5433	6355	7683	6972	2949	456	333	1455	2234	2851	4886	6168
Avg	4663	4314	4189	2551	1034	553	676	1012	1353	1955	3344	4673

Old River @ Middle River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	493	495	733	735	750	698	511	448	755	929	923	926
1977	611	583	745	848	923	887	645	532	717	943	841	942
1978	680	680	866	694	440	311	240	235	293	456	615	658
1979	467	497	676	575	399	332	345	428	459	604	654	671
1980	492	570	720	459	224	211	291	339	329	411	565	661
1981	443	502	719	695	643	630	503	473	627	700	853	869
1982	580	602	746	525	293	237	192	179	241	383	480	418
1983	331	297	244	187	153	133	154	182	156	178	316	369
1984	342	276	206	201	264	332	353	404	506	633	671	688
1985	468	657	723	714	690	643	492	424	610	707	857	857
1986	611	650	820	741	430	167	216	283	301	492	689	674
1987	475	549	759	751	752	697	499	447	727	903	936	876
1988	605	611	898	915	934	901	616	499	738	821	841	957
1989	657	629	919	920	940	877	571	472	667	904	848	883
1990	549	577	932	942	931	893	629	508	620	693	746	916
1991	598	605	949	967	987	843	540	486	624	691	796	906
Avg	525	549	728	679	610	550	425	396	523	653	727	767

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1C

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	572	540	725	732	752	701	608	494	734	876	894	943
1977	753	653	732	834	912	891	741	595	684	910	880	894
1978	802	718	850	705	454	322	318	400	306	463	613	660
1979	544	515	664	589	410	336	369	497	473	610	661	669
1980	585	591	721	474	245	215	330	445	339	413	556	642
1981	513	493	709	705	653	638	604	531	620	723	781	861
1982	708	663	749	559	302	253	195	342	244	383	484	422
1983	350	318	252	252	174	167	155	184	158	180	317	373
1984	345	283	224	208	269	335	397	415	499	612	667	668
1985	565	697	736	722	696	645	573	443	589	739	821	869
1986	743	703	819	749	446	171	224	361	308	487	685	680
1987	565	554	748	750	752	702	596	481	718	934	930	891
1988	728	655	882	908	925	905	724	562	695	807	784	890
1989	789	680	899	914	936	884	675	539	666	919	819	887
1990	690	612	902	940	930	900	754	593	654	668	644	914
1991	739	634	903	964	983	861	640	575	606	590	657	835
Avg	624	582	720	688	615	558	494	466	518	645	700	756

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	521	382	687	786	451	281	295	366	556	562	552	733
1977	759	951	1614	1738	1205	649	488	494	494	497	518	710
1978	737	630	1006	661	287	305	306	276	348	289	269	395
1979	552	994	1581	1127	372	250	283	350	325	280	342	484
1980	633	988	994	460	339	249	270	356	322	278	243	344
1981	502	1017	1742	1166	349	228	278	368	340	518	611	725
1982	770	688	239	336	326	337	205	215	238	222	224	250
1983	224	240	316	258	179	182	165	192	172	182	192	242
1984	280	295	231	214	273	251	260	326	291	255	293	366
1985	608	714	293	382	523	316	283	321	316	506	648	779
1986	786	941	1264	833	516	268	249	295	296	300	269	343
1987	522	908	1551	1564	844	328	269	371	352	525	625	666
1988	725	794	1505	1194	396	289	352	417	543	614	533	713
1989	719	733	1406	1881	1490	485	265	337	352	541	688	793
1990	706	883	1156	1431	829	428	394	425	478	519	482	677
1991	684	655	1047	1251	1064	444	341	375	408	397	445	666
Avg	608	738	1040	955	590	331	294	343	364	405	433	555

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

Old River @ Rock Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	539	380	773	832	427	249	241	332	603	581	599	810
1977	834	1113	1883	1925	1217	565	453	465	456	449	523	772
1978	757	636	1139	655	243	266	317	319	275	250	252	428
1979	608	1188	1800	1195	337	221	247	322	284	278	357	545
1980	697	1141	1062	414	291	228	244	317	284	237	222	365
1981	536	1224	1960	1223	315	198	220	306	320	601	704	838
1982	853	738	216	269	285	296	237	209	200	195	207	232
1983	201	214	277	305	199	178	185	209	182	175	180	217
1984	258	317	271	246	246	214	222	288	237	256	287	387
1985	681	768	274	412	548	286	227	271	303	585	749	886
1986	870	1075	1401	872	495	323	236	265	268	254	239	352
1987	556	1073	1775	1709	864	301	215	318	324	601	694	738
1988	785	901	1728	1260	359	252	296	380	575	589	548	776
1989	740	811	1654	2132	1551	471	220	280	333	614	809	905
1990	775	1011	1298	1593	816	391	330	376	490	519	515	760
1991	717	710	1218	1405	1050	394	270	322	365	376	492	757
Avg	650	831	1171	1028	578	302	260	311	344	410	461	611

Old River @ Holland Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	557	391	822	845	423	246	235	330	633	594	628	862
1977	890	1210	1995	1972	1194	544	453	459	449	441	545	815
1978	768	653	1212	649	229	253	284	278	262	239	255	462
1979	653	1301	1896	1211	322	208	237	310	274	282	374	591
1980	742	1226	1080	389	272	219	233	298	270	225	223	392
1981	566	1345	2053	1230	305	192	211	288	322	644	750	903
1982	911	768	210	247	269	276	248	191	192	188	209	231
1983	193	201	260	316	217	189	181	204	187	171	177	209
1984	246	301	282	246	232	204	213	274	229	262	291	414
1985	737	803	271	433	560	281	218	256	308	626	798	950
1986	928	1153	1462	880	449	268	206	244	257	239	235	372
1987	588	1170	1879	1765	867	294	206	293	323	638	732	780
1988	830	956	1834	1269	349	251	294	374	600	589	573	817
1989	754	872	1762	2233	1549	463	212	263	337	656	866	964
1990	828	1081	1355	1653	805	385	320	364	504	520	545	808
1991	735	754	1294	1451	1014	379	256	307	356	375	527	809
Avg	683	887	1229	1049	566	291	250	296	344	418	483	649

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	470	387	507	654	512	324	302	424	476	477	453	575
1977	581	639	1114	1319	1075	682	487	515	510	479	476	605
1978	656	623	754	703	477	363	325	288	340	509	293	631
1979	440	614	1085	753	446	362	321	386	528	279	288	357
1980	483	678	830	506	265	228	283	377	366	431	275	300
1981	428	623	1212	981	605	584	345	445	367	365	403	476
1982	566	561	369	611	332	314	204	193	253	396	497	431
1983	277	328	264	266	178	162	160	189	165	186	331	382
1984	322	293	230	231	290	340	298	391	317	236	283	324
1985	452	576	356	457	611	521	322	405	336	361	427	525
1986	579	672	943	785	457	187	241	301	328	324	302	317
1987	449	603	1057	1146	778	523	309	423	379	379	446	506
1988	575	615	1026	1021	447	297	347	473	484	520	469	603
1989	632	620	984	1258	1158	555	318	427	370	399	448	521
1990	534	668	910	1061	791	463	410	477	448	464	421	529
1991	575	587	824	1018	1003	750	398	448	436	393	354	495
Avg	501	568	779	798	589	416	317	385	381	387	385	474

Middle River @ Santa Fe Rail Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	474	379	528	631	404	279	309	422	474	454	455	574
1977	575	659	1174	1371	1025	601	479	513	485	445	469	607
1978	647	626	780	563	341	340	334	326	304	312	277	332
1979	432	647	1152	859	389	295	313	377	336	261	285	362
1980	482	703	791	484	320	241	274	358	337	299	261	301
1981	429	659	1270	922	354	268	331	445	350	362	400	482
1982	561	553	258	405	347	359	232	201	227	243	244	273
1983	265	277	308	296	200	187	176	203	179	181	202	283
1984	318	333	273	258	275	270	296	392	302	229	278	323
1985	453	568	298	323	438	312	322	403	322	357	423	529
1986	571	687	957	675	509	285	231	279	307	304	290	313
1987	449	627	1124	1185	688	322	305	431	359	374	436	508
1988	567	621	1090	948	361	271	360	472	476	494	462	605
1989	622	632	1047	1414	1198	428	318	420	351	392	444	524
1990	529	687	915	1089	709	397	413	470	434	444	417	532
1991	568	599	846	1032	944	460	392	442	412	375	350	506
Avg	496	579	801	778	531	332	318	385	353	345	356	441

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1C

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	423	315	598	615	329	215	241	322	495	412	416	539
1977	515	792	1419	1429	875	436	377	438	377	349	396	532
1978	511	540	874	450	245	294	266	248	268	234	213	297
1979	394	842	1357	843	304	231	287	358	259	230	262	364
1980	445	851	812	400	257	218	260	330	284	225	192	256
1981	376	874	1471	892	263	191	248	349	276	416	460	532
1982	527	529	195	279	292	281	219	181	208	186	181	200
1983	207	227	263	273	211	179	162	189	170	176	171	233
1984	301	295	253	224	241	222	254	345	216	212	224	278
1985	429	544	241	339	417	238	251	296	264	407	489	565
1986	539	777	1059	648	399	190	200	269	274	231	209	257
1987	382	765	1326	1257	628	247	229	370	282	416	457	485
1988	504	659	1302	929	289	218	289	372	470	424	403	530
1989	486	612	1250	1588	1096	352	229	317	289	431	529	565
1990	476	737	976	1202	602	313	323	395	407	378	373	508
1991	458	560	944	1072	772	315	296	356	310	291	342	489
Avg	436	620	896	778	451	259	258	321	303	314	332	414

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	562	513	727	734	751	699	581	489	719	906	881	946
1977	728	636	739	842	919	891	715	582	679	900	843	899
1978	782	702	860	699	444	315	243	238	294	451	609	658
1979	532	499	667	581	402	333	355	485	459	604	662	668
1980	567	544	717	464	229	213	304	349	331	407	556	638
1981	503	493	713	699	646	633	568	523	615	708	820	868
1982	683	625	745	533	296	243	193	180	240	378	480	421
1983	333	299	245	199	157	140	155	182	157	178	312	371
1984	347	278	208	203	266	333	381	414	495	611	667	662
1985	546	632	727	716	693	644	551	444	584	721	846	872
1986	718	677	817	745	434	169	217	287	303	476	680	675
1987	553	553	753	751	752	700	571	480	705	912	920	888
1988	707	644	888	914	931	904	686	550	702	811	773	904
1989	769	672	908	917	938	882	640	531	657	898	845	896
1990	666	604	914	942	931	897	707	576	636	670	647	919
1991	718	620	929	966	986	852	598	561	598	603	706	869
Avg	607	562	722	682	611	553	467	429	511	640	703	760

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

Grant Line Canal @ West End

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	561	423	718	731	753	701	580	462	679	905	888	947
1977	736	729	745	835	914	895	713	575	675	884	852	902
1978	788	656	851	706	448	317	243	239	296	446	604	661
1979	534	683	682	585	405	335	349	451	470	602	660	662
1980	575	692	721	468	231	213	297	350	334	404	546	639
1981	505	694	717	703	649	636	562	495	614	690	824	867
1982	695	661	741	541	298	245	194	180	240	373	482	425
1983	334	300	246	204	159	143	155	182	157	177	308	373
1984	339	279	208	204	266	333	375	394	492	605	665	659
1985	553	636	725	717	696	644	549	420	574	707	852	876
1986	726	737	816	749	438	170	216	287	304	457	678	671
1987	651	672	764	754	753	702	563	455	666	900	927	896
1988	714	673	884	914	926	906	690	529	694	824	776	905
1989	774	661	895	925	941	885	629	490	656	895	855	898
1990	676	696	900	947	930	901	700	567	635	679	648	901
1991	725	610	902	966	984	864	591	534	601	610	695	870
Avg	612	613	720	684	612	556	463	413	505	635	704	760

DMC Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	511	383	637	759	521	371	385	376	528	560	532	718
1977	719	841	1351	1524	1179	751	564	507	521	564	555	683
1978	739	631	909	686	360	326	250	241	314	332	321	414
1979	521	861	1331	991	403	292	312	366	363	303	361	469
1980	595	884	932	488	277	231	275	352	343	320	298	371
1981	482	873	1488	1085	425	313	367	388	383	485	567	675
1982	722	666	318	421	328	292	203	181	232	258	270	292
1983	270	274	275	235	179	160	155	187	163	183	212	293
1984	294	292	225	207	268	289	305	340	322	274	343	394
1985	562	685	358	406	542	393	374	346	349	475	599	727
1986	740	851	1135	813	463	185	213	288	313	339	341	380
1987	502	794	1320	1387	832	407	355	330	384	500	596	657
1988	694	728	1309	1152	496	403	459	432	520	599	520	683
1989	720	682	1207	1644	1408	547	354	366	368	517	632	743
1990	668	796	1053	1304	867	518	497	453	473	528	470	653
1991	677	618	936	1147	1072	549	435	406	429	424	423	621
Avg	589	679	924	891	601	377	344	347	375	416	440	548

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 1C

Clifton Court Forebay

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	511	383	637	759	521	371	385	376	528	560	532	718
1977	719	841	1351	1524	1179	751	564	507	521	564	555	683
1978	739	631	909	686	360	326	250	241	314	332	321	414
1979	621	861	1331	991	403	292	312	366	363	303	361	469
1980	595	884	932	488	277	231	275	352	343	320	298	371
1981	482	873	1488	1085	425	313	367	388	383	485	567	675
1982	722	666	318	421	328	292	203	181	232	258	270	292
1983	270	274	275	235	179	160	155	187	163	183	212	293
1984	294	292	225	207	268	289	305	340	322	274	343	394
1985	562	685	358	406	542	393	374	346	349	475	599	727
1986	740	851	1135	813	463	185	213	288	313	339	341	380
1987	502	794	1320	1387	832	407	355	330	384	500	596	657
1988	694	728	1309	1152	496	403	459	432	520	599	520	683
1989	720	682	1207	1644	1408	547	354	366	368	517	632	743
1990	668	796	1053	1304	867	518	497	453	473	528	470	653
1991	677	618	936	1147	1072	549	435	406	429	424	423	621
Avg	589	679	924	891	601	377	344	347	375	416	440	548

Contra Costa Canal Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	561	391	747	869	480	282	320	375	614	642	639	818
1977	854	1036	1767	1912	1293	641	496	497	509	516	560	773
1978	779	637	1092	791	350	380	365	390	351	290	275	433
1979	608	1130	1769	1281	412	244	322	390	327	315	376	546
1980	709	1100	1104	489	547	299	374	384	321	273	244	372
1981	545	1154	1940	1326	389	256	336	362	343	599	713	838
1982	869	767	255	635	369	515	405	268	221	224	227	251
1983	215	293	428	836	535	472	348	255	223	204	205	238
1984	278	380	447	332	306	256	284	319	262	282	313	402
1985	688	835	324	420	584	328	291	308	322	588	762	903
1986	902	1049	1396	942	670	512	400	330	300	298	281	377
1987	573	1024	1729	1728	944	371	302	420	352	618	733	755
1988	805	860	1625	1345	415	290	361	414	601	683	588	780
1989	764	771	1563	2072	1647	555	277	341	370	625	805	917
1990	785	972	1264	1573	903	434	459	413	529	563	528	748
1991	740	684	1149	1367	1117	467	330	371	415	407	498	751
Avg	667	818	1162	1120	685	394	354	365	379	445	484	619

Department of Water Resources, Delta Modeling Section

Table 2-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 1C

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	616	579	488	558	494	424	600	646	503	425	664	725
1977	800	636	872	1031	901	772	752	642	609	494	742	911
1978	976	922	725	667	492	347	256	247	312	420	409	516
1979	549	532	819	675	445	354	356	377	436	288	352	460
1980	645	633	645	498	252	218	294	357	347	401	408	504
1981	545	524	917	743	467	423	609	597	443	290	303	459
1982	774	701	350	601	327	287	203	183	244	346	411	433
1983	345	323	264	228	180	171	158	187	163	181	257	379
1984	328	295	231	213	270	333	396	445	415	243	415	506
1985	669	726	378	332	472	453	586	556	410	290	325	524
1986	771	729	769	587	459	181	215	291	315	374	456	496
1987	632	698	841	907	611	419	595	628	425	314	378	636
1988	804	739	854	751	392	409	723	641	530	478	712	900
1989	965	941	895	1089	996	422	598	552	426	328	327	475
1990	819	899	864	867	645	511	725	518	474	463	623	668
1991	879	925	870	919	943	621	693	530	534	489	395	705
Avg	695	669	674	667	522	397	485	462	412	364	449	581

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	442	323	555	609	339	221	250	346	479	407	398	503
1977	496	709	1320	1410	917	470	389	460	392	359	390	508
1978	520	553	820	444	284	311	277	257	280	251	216	273
1979	401	721	1266	808	337	264	299	367	274	229	252	326
1980	434	752	782	430	267	223	266	339	309	244	197	237
1981	402	746	1377	867	276	201	266	382	285	378	413	476
1982	488	486	201	324	306	291	234	184	220	197	184	222
1983	240	255	271	305	221	190	168	194	176	178	175	262
1984	314	309	277	242	249	241	272	374	231	208	223	260
1985	392	503	248	322	404	246	267	337	269	371	438	511
1986	496	707	999	629	435	212	203	270	289	246	215	245
1987	405	681	1233	1205	627	255	242	395	292	383	425	455
1988	486	626	1200	903	304	223	297	402	460	430	394	506
1989	492	588	1163	1507	1119	356	250	358	296	397	467	510
1990	432	687	943	1131	624	326	340	422	406	384	362	476
1991	457	547	896	1053	815	340	318	388	328	299	322	451
Avg	431	575	847	762	470	273	271	342	312	310	317	389

Department of Water Resources, Delta Modeling Section

Figure 2-4
Distance Reference for X2 Tables
(values shown in kilometers from Golden Gate)

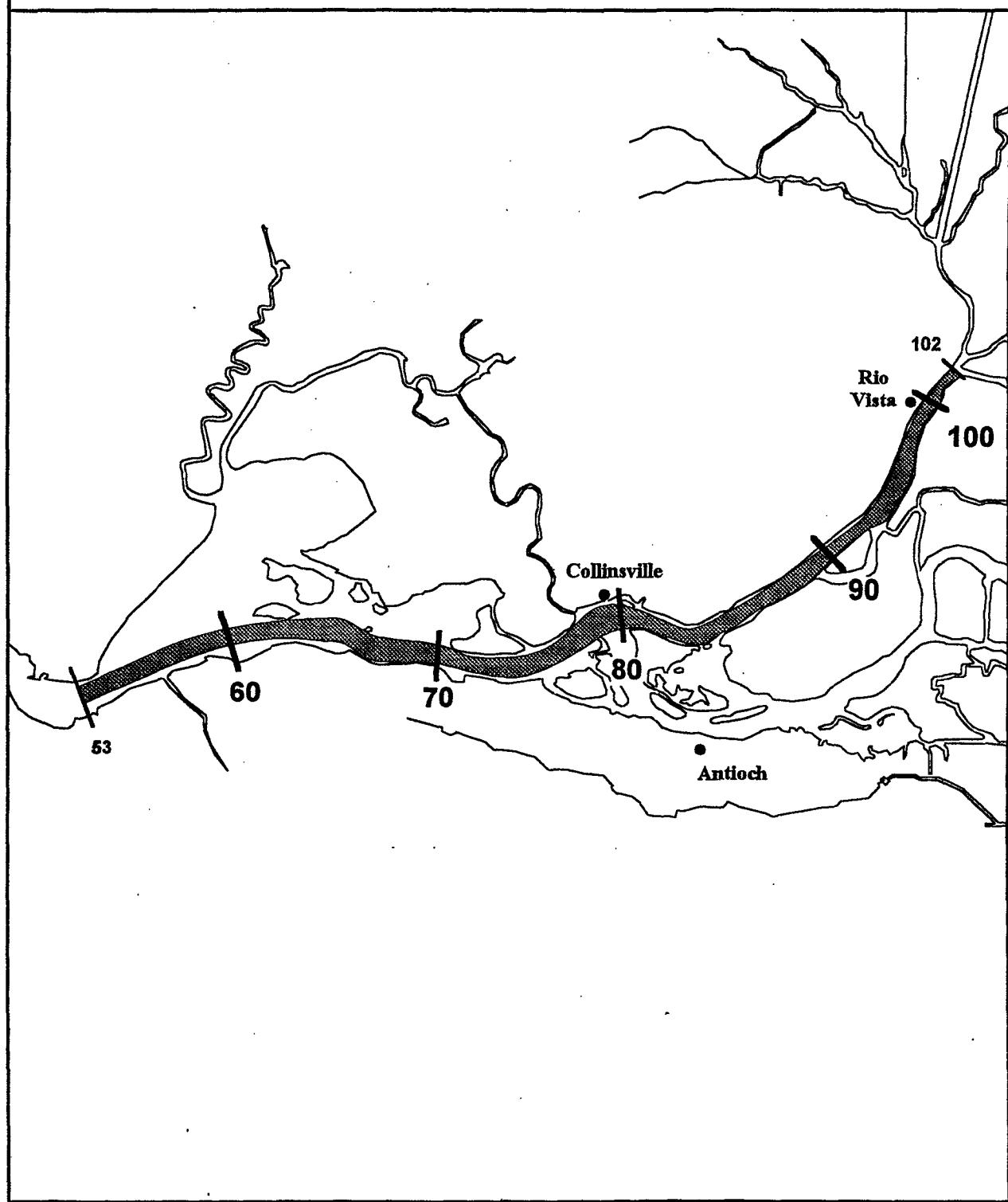


Table 2-5
Monthly Average Location of 2640 micro Siemens/cm, EC
(Values in km from Golden Gate)
(Benicia Assumed to be at 53.1 km from Golden gate)
(Hydrology from DWRSIM Study 531)

Alternative 1C

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	71.9	74.8	80.7	77.2	70.8	70.9	76.2	82.2	79.5	82.9	87.9	89.3
1977	86.4	86.8	87.7	88.0	79.7	80.8	83.5	83.3	80.0	83.5	88.4	90.0
1978	87.7	86.7	84.2	61.1	58.8	56.3	59.1	62.1	66.1	72.0	79.9	85.2
1979	86.1	85.4	85.5	69.9	61.0	61.4	62.6	66.7	69.6	74.0	82.1	86.4
1980	86.5	82.9	74.6	59.7	*	57.7	62.0	62.7	66.3	72.5	79.6	84.7
1981	86.8	85.7	84.5	70.2	62.8	62.4	64.9	71.4	76.7	80.8	84.7	87.7
1982	87.4	65.8	57.4	55.2	54.2	*	*	58.3	62.1	69.3	78.0	72.9
1983	63.5	60.9	56.8	*	*	*	56.2	57.7	56.2	61.3	69.3	63.5
1984	62.4	57.5	*	56.1	59.7	60.8	62.7	65.0	69.9	73.4	79.1	85.1
1985	86.2	66.3	68.5	75.7	71.8	65.2	69.7	72.6	76.1	80.7	84.6	87.7
1986	87.2	85.5	82.3	72.0	60.1	0.0	61.5	62.7	67.7	72.9	78.4	84.3
1987	86.4	86.1	85.7	82.6	71.6	62.5	69.9	72.1	76.3	81.6	85.3	88.5
1988	88.7	88.2	84.4	72.2	71.0	76.3	80.1	82.7	79.8	83.1	88.5	89.9
1989	88.2	87.3	88.8	87.1	79.4	63.1	62.7	70.5	76.2	80.2	84.1	87.0
1990	87.7	87.4	87.2	80.3	74.3	75.1	75.7	81.6	80.8	84.0	88.7	89.6
1991	88.0	87.8	89.1	88.6	80.2	64.6	67.3	77.3	80.6	84.0	86.9	86.9
Avg	83.2	79.7	**	**	**	**	**	70.5	72.7	77.3	82.8	84.9

* Values Downstream of Model Boundary - Benicia

** 16 Year Average not Reported - Contains Values Downstream of Benicia.

Department of Water Resources, Delta Modeling Section

Figure 2-5
Output Locations for Minimum Water Levels
Alternative 1C

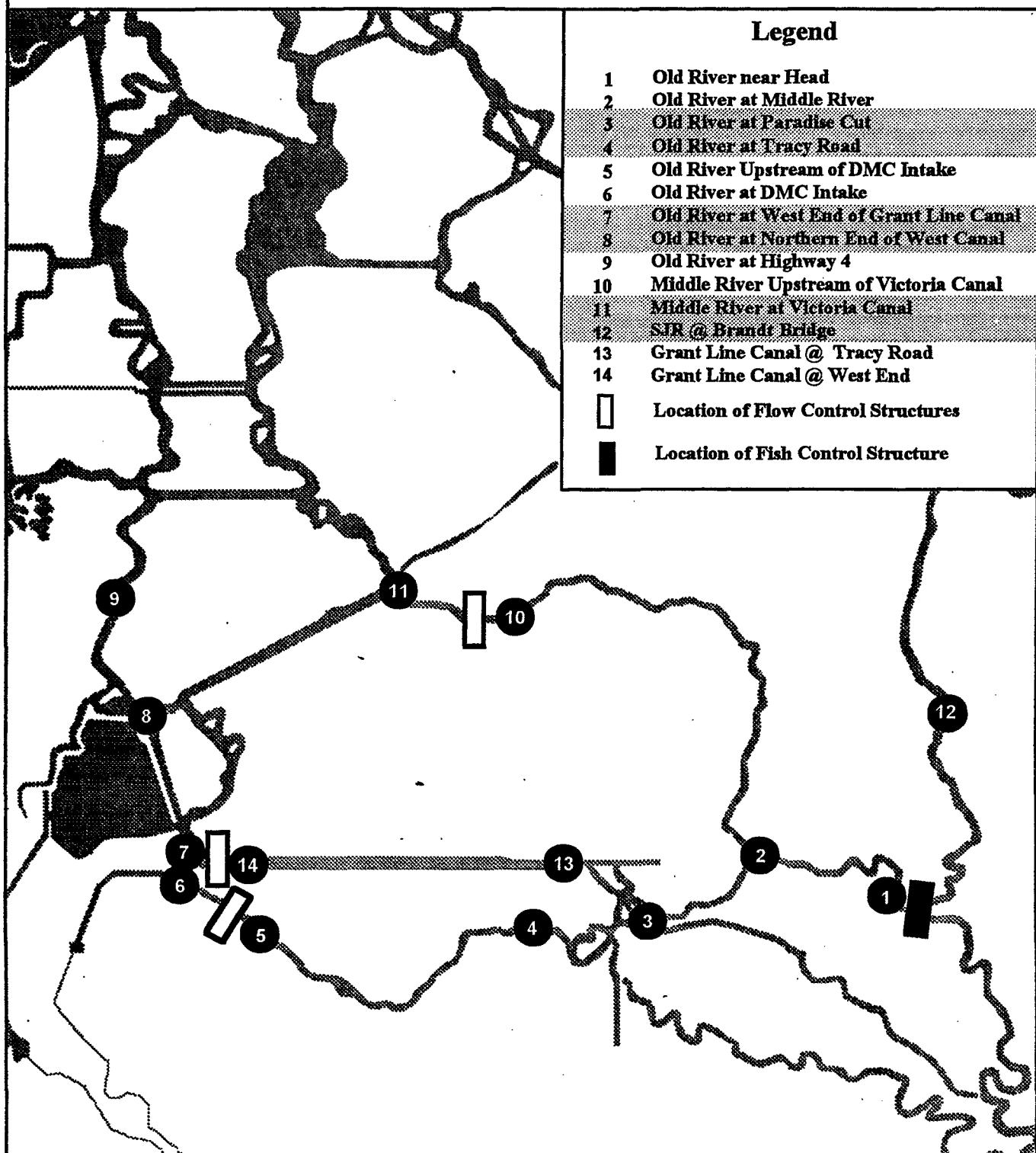


Table 2-6
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1C

Old River near Head

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.71	-0.61	-0.68	1.11	1.31	1.63	1.54
1977	0.53	-0.64	-0.59	1.44	1.25	1.63	1.73
1978	6.38	6.38	5.28	3.67	1.80	1.60	1.78
1979	2.25	-0.53	-0.60	1.72	1.30	1.53	1.66
1980	2.57	-0.52	3.16	3.54	2.15	1.65	1.83
1981	0.94	-0.58	-0.62	1.30	0.93	1.41	1.50
1982	9.71	9.71	7.11	4.58	1.97	1.79	2.84
1983	7.61	7.61	8.04	12.30	6.30	1.87	3.59
1984	1.45	-0.56	-0.62	1.65	1.30	1.66	1.72
1985	0.94	-0.60	-0.67	1.30	0.95	1.39	1.54
1986	4.31	4.31	3.88	4.09	1.60	1.62	1.67
1987	0.75	0.62	-0.57	1.11	0.95	1.48	1.57
1988	0.66	-0.60	-0.64	1.31	1.27	1.58	1.71
1989	0.83	-0.62	-0.66	1.31	0.94	1.32	1.50
1990	0.83	0.62	-0.59	1.33	1.37	1.55	1.52
1991	1.05	-0.59	-0.63	1.48	1.42	1.44	1.70
Avg	2.60	1.31	1.29	2.70	1.68	1.57	1.84

Old River @ Middle River

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.33	-0.57	-0.64	1.08	1.28	1.59	1.48
1977	0.20	-0.61	-0.55	1.41	1.23	1.59	1.70
1978	4.21	4.21	3.37	2.65	1.58	1.49	1.53
1979	1.36	-0.49	-0.56	1.50	1.23	1.43	1.52
1980	1.57	-0.48	1.94	2.57	1.83	1.55	1.62
1981	0.49	-0.54	-0.58	1.24	0.89	1.38	1.41
1982	6.09	6.09	4.69	3.29	1.68	1.53	2.15
1983	4.59	4.59	4.84	7.89	4.48	1.57	2.69
1984	0.84	-0.53	-0.58	1.53	1.23	1.55	1.55
1985	0.49	-0.56	-0.63	1.24	0.91	1.35	1.44
1986	2.75	2.75	2.41	2.94	1.53	1.52	1.52
1987	0.36	-0.59	-0.53	1.09	0.92	1.44	1.51
1988	0.31	-0.56	-0.60	1.28	1.25	1.55	1.68
1989	0.41	-0.58	-0.62	1.27	0.90	1.28	1.42
1990	0.41	-0.58	-0.55	1.30	1.34	1.52	1.48
1991	0.56	-0.55	-0.60	1.45	1.39	1.41	1.66
Avg	1.56	0.69	0.68	2.11	1.48	1.48	1.65

Department of Water Resources, Delta Modeling Section

Table 2-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1C

Old River near Paradise Cut

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.08	-0.48	-0.55	1.08	1.29	1.61	1.42
1977	0.00	-0.52	-0.46	1.40	1.21	1.60	1.68
1978	2.39	2.39	1.83	2.05	1.46	1.40	1.40
1979	0.69	-0.41	0.47	1.32	1.13	1.34	1.38
1980	0.82	-0.40	1.01	2.00	1.67	1.46	1.43
1981	0.18	-0.46	-0.49	1.25	0.92	1.37	1.32
1982	3.15	3.15	2.66	2.52	1.53	1.40	1.74
1983	2.26	2.26	2.33	4.01	3.33	1.36	2.17
1984	0.39	-0.44	-0.49	1.36	1.13	1.46	1.40
1985	0.17	-0.47	-0.54	1.25	0.94	1.34	1.34
1986	1.60	1.50	1.27	2.25	1.49	1.44	1.38
1987	0.09	0.50	0.44	1.08	0.94	1.45	1.44
1988	0.07	-0.48	-0.51	1.29	1.24	1.56	1.66
1989	0.12	-0.49	-0.53	1.28	0.92	1.27	1.33
1990	0.12	-0.49	-0.45	1.30	1.33	1.53	1.43
1991	0.21	-0.47	-0.50	1.44	1.38	1.42	1.65
Avg	0.77	0.23	0.23	1.68	1.37	1.44	1.51

Old River @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.23	-0.18	-0.26	0.98	1.27	1.61	1.25
1977	0.14	-0.22	-0.15	1.39	1.12	1.59	1.74
1978	2.34	2.34	1.78	1.66	1.28	1.22	1.22
1979	0.73	-0.11	-0.19	1.08	0.89	1.19	1.20
1980	0.84	-0.11	1.00	1.63	1.44	1.26	1.23
1981	0.30	-0.16	-0.20	1.09	0.74	1.42	1.16
1982	2.30	2.30	2.59	2.06	1.34	1.22	1.42
1983	1.58	1.58	1.58	2.86	2.72	1.10	1.83
1984	0.48	-0.14	-0.20	1.13	0.87	1.26	1.22
1985	0.29	-0.18	-0.25	1.08	0.73	1.40	1.19
1986	1.48	1.48	1.24	1.83	1.27	1.25	1.21
1987	0.21	-0.21	-0.15	0.98	0.77	1.45	1.25
1988	0.21	-0.18	-0.21	1.27	1.23	1.55	1.72
1989	0.23	-0.21	-0.24	1.26	0.72	1.31	1.18
1990	0.24	-0.20	-0.14	1.28	1.32	1.52	1.24
1991	0.33	-0.17	-0.21	1.43	1.37	1.41	1.70
Avg	0.75	0.35	0.37	1.44	1.19	1.36	1.36

Department of Water Resources, Delta Modeling Section

Table 2-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1C

Old River Upstream of DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.41	0.10	0.01	0.88	1.25	1.52	1.01
1977	0.33	0.04	0.14	1.37	0.95	1.51	1.59
1978	2.28	2.28	1.69	1.18	1.06	1.00	1.00
1979	0.77	0.14	0.06	0.86	0.64	0.97	0.99
1980	0.86	0.15	0.98	1.16	1.17	1.03	0.97
1981	0.47	0.10	0.07	0.91	0.53	1.28	0.96
1982	1.22	1.22	2.53	1.44	1.11	1.02	0.97
1983	0.77	0.77	0.69	1.34	1.86	0.80	1.36
1984	0.64	0.12	0.05	0.90	0.61	1.03	1.00
1985	0.45	0.08	0.00	0.91	0.52	1.26	0.98
1986	1.40	1.40	1.17	1.30	1.05	1.02	1.00
1987	0.39	0.05	0.15	0.89	0.57	1.34	1.02
1988	0.39	0.09	0.06	1.25	1.23	1.48	1.57
1989	0.35	0.02	0.01	1.24	0.51	1.19	0.98
1990	0.41	0.06	0.13	1.27	1.32	1.47	1.01
1991	0.50	0.10	0.07	1.42	1.37	1.37	1.55
Avg	0.73	0.42	0.49	1.15	0.98	1.21	1.12

Old River @ DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.52	-0.66	-0.70	-1.08	-1.05	-1.03	-1.05
1977	-0.55	-0.68	-0.66	-1.02	-1.06	-1.04	-1.03
1978	0.16	0.16	-0.02	-1.03	-1.03	-1.06	-1.06
1979	-0.31	-0.58	-0.62	-1.08	-1.20	-1.06	-1.06
1980	-0.28	-0.57	-0.24	-1.02	-1.02	-1.04	-1.05
1981	-0.47	-0.63	-0.66	-1.09	-1.23	-1.06	-1.06
1982	1.07	1.07	0.20	-0.97	-1.03	-1.05	-1.13
1983	0.67	0.67	0.58	1.12	-0.99	-1.17	-0.94
1984	-0.40	-0.61	-0.64	-1.07	-1.21	-1.05	-1.06
1985	-0.48	-0.64	-0.68	-1.09	-1.23	-1.07	-1.06
1986	-0.08	-0.08	-0.17	-1.00	-1.02	-1.05	-1.05
1987	-0.51	-0.66	-0.62	-1.09	-1.22	-1.05	-1.05
1988	-0.52	-0.66	-0.68	-1.05	-1.04	-1.04	-1.03
1989	-0.49	-0.64	-0.68	-1.06	-1.24	-1.20	-1.05
1990	-0.50	-0.66	-0.66	-1.04	-1.04	-1.04	-1.05
1991	-0.47	-0.64	-0.68	-1.02	-1.04	-1.04	-1.04
Avg	-0.23	-0.36	-0.43	-0.91	-1.10	-1.07	-1.05

Department of Water Resources, Delta Modeling Section

Table 2-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1C

Old River @ West End of Grant Line Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.51	-0.65	-0.69	-1.05	-1.02	-1.01	-1.02
1977	-0.54	-0.67	-0.65	-0.99	-1.02	-1.01	-1.00
1978	0.17	0.17	-0.01	-0.98	-1.00	-1.03	-1.02
1979	-0.31	-0.57	-0.61	-1.04	-1.18	-1.02	-1.03
1980	-0.27	-0.56	-0.23	-0.97	-0.98	-1.01	-1.02
1981	-0.46	-0.62	-0.65	-1.05	-1.20	-1.03	-1.03
1982	-1.08	-1.08	-0.21	-0.92	-0.99	-1.01	-1.10
1983	-0.67	0.67	-0.58	-1.12	-0.84	-1.14	-0.89
1984	-0.40	-0.60	-0.63	-1.03	-1.18	-1.01	-1.03
1985	-0.47	-0.63	-0.67	-1.05	-1.20	-1.04	-1.02
1986	-0.07	-0.07	-0.16	-0.96	-0.99	-1.01	-1.02
1987	-0.50	-0.65	-0.61	-1.05	-1.19	-1.02	-1.02
1988	-0.51	-0.65	-0.68	-1.03	-1.01	-1.01	-1.00
1989	-0.48	-0.63	-0.67	-1.04	-1.21	-1.18	-1.02
1990	-0.49	-0.65	-0.65	-1.01	-1.01	-1.01	-1.02
1991	-0.46	-0.63	-0.67	-0.99	-1.01	-1.01	-1.01
Avg	-0.22	-0.35	-0.42	-0.88	-1.06	-1.03	-1.02

Old River @ Northern End of West Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.54	-0.64	-0.67	-0.96	-0.95	-0.93	-0.93
1977	-0.57	-0.66	-0.64	-0.92	-0.93	-0.94	-0.93
1978	-0.06	-0.06	-0.18	-0.87	-0.90	-0.93	-0.93
1979	-0.38	-0.56	-0.59	-0.94	-1.10	-0.93	-0.93
1980	-0.35	-0.54	-0.33	-0.86	-0.88	-0.91	-0.92
1981	-0.50	-0.61	-0.63	-0.97	-1.14	-0.96	-0.93
1982	-0.66	-0.66	-0.07	-0.82	-0.89	-0.92	-1.03
1983	-0.40	-0.40	-0.27	-0.45	-0.80	-1.07	-0.79
1984	-0.45	-0.59	-0.61	-0.94	-1.12	-0.92	-0.93
1985	-0.51	-0.62	-0.66	-0.96	-1.14	-0.96	-0.93
1986	-0.21	-0.21	-0.29	-0.86	-0.89	-0.92	-0.92
1987	-0.53	-0.64	-0.59	-0.97	-1.11	-0.94	-0.93
1988	-0.54	-0.64	-0.66	-0.96	-0.94	-0.94	-0.93
1989	-0.51	-0.62	-0.65	-0.97	-1.16	-1.10	-0.92
1990	-0.52	-0.63	-0.64	-0.94	-0.94	-0.94	-0.92
1991	-0.50	-0.62	-0.65	-0.92	-0.94	-0.94	-0.93
Avg	-0.32	-0.41	-0.47	-0.84	-0.99	-0.95	-0.93

Department of Water Resources, Delta Modeling Section

Table 2-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1C

Old River @ Highway 4

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.50	-0.57	-0.60	-0.88	-0.87	-0.84	-0.85
1977	-0.52	-0.59	-0.57	-0.83	-0.85	-0.85	-0.84
1978	-0.05	-0.05	-0.21	-0.80	-0.83	-0.85	-0.85
1979	-0.36	-0.49	-0.53	-0.87	-0.96	-0.85	-0.85
1980	-0.34	-0.48	-0.33	-0.79	-0.81	-0.84	-0.84
1981	-0.46	-0.54	-0.56	-0.88	-1.00	-0.87	-0.85
1982	-0.68	0.68	0.00	-0.74	-0.82	-0.84	-0.89
1983	0.39	0.39	0.29	-0.47	-0.65	-0.91	-0.41
1984	-0.42	-0.52	-0.54	-0.86	-0.98	-0.84	-0.85
1985	-0.47	-0.55	-0.59	-0.88	-1.01	-0.88	-0.85
1986	-0.22	0.22	0.29	-0.78	-0.81	-0.84	-0.84
1987	-0.49	0.57	0.52	-0.88	-0.97	-0.86	0.85
1988	-0.50	-0.57	-0.59	-0.87	-0.85	-0.85	-0.84
1989	-0.47	-0.55	-0.58	-0.88	-1.02	-0.91	-0.84
1990	-0.49	0.56	0.57	-0.86	-0.85	-0.85	-0.84
1991	-0.47	0.55	-0.58	-0.83	-0.85	-0.86	-0.85
Avg	-0.29	-0.36	-0.42	-0.76	-0.88	-0.86	-0.84

Middle River Upstream of Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1.63	1.44	1.20	1.14	1.34	1.77	1.66
1977	1.49	1.32	1.50	1.49	1.38	1.74	1.83
1978	4.16	4.16	3.29	0.94	0.92	1.56	0.86
1979	2.02	1.45	1.30	0.72	1.23	1.52	1.67
1980	2.15	1.49	2.21	0.94	1.02	1.82	1.82
1981	1.66	1.44	1.35	1.21	0.96	1.45	1.58
1982	0.79	0.79	4.57	1.14	0.95	0.87	0.84
1983	0.43	0.43	0.33	0.80	1.43	0.70	1.14
1984	1.79	1.42	1.32	1.52	1.21	1.61	1.71
1985	1.65	1.44	1.26	1.23	0.98	1.44	1.62
1986	2.85	2.85	2.49	1.03	1.55	1.59	1.71
1987	1.60	1.38	1.46	1.18	1.02	1.52	1.65
1988	1.68	1.51	1.36	1.33	1.38	1.71	1.79
1989	1.57	1.34	1.29	1.33	0.95	1.37	1.63
1990	1.65	1.43	1.51	1.36	1.45	1.70	1.64
1991	1.66	1.44	1.34	1.55	1.50	1.54	1.77
Avg	1.80	1.58	1.74	1.18	1.20	1.48	1.56

Department of Water Resources, Delta Modeling Section

Table 2-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1C

Middle River @ Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.56	-0.63	-0.66	-0.92	-0.91	-0.89	-0.89
1977	-0.58	-0.64	-0.62	-0.88	-0.90	-0.90	-0.89
1978	-0.11	-0.11	-0.28	-0.84	-0.86	-0.90	-0.89
1979	-0.42	-0.54	-0.57	-0.90	-1.00	-0.89	-0.89
1980	-0.40	-0.53	-0.39	-0.83	-0.85	-0.88	-0.89
1981	-0.52	-0.59	-0.61	-0.92	-1.03	-0.91	-0.89
1982	0.73	0.73	0.05	-0.78	-0.86	0.88	-0.92
1983	0.39	0.39	0.29	0.59	-0.69	-0.95	-0.76
1984	-0.47	-0.57	-0.59	-0.90	-1.01	-0.88	-0.89
1985	-0.53	-0.60	-0.64	-0.92	-1.03	-0.92	-0.89
1986	-0.29	-0.29	-0.36	-0.82	-0.86	-0.88	-0.89
1987	-0.55	-0.62	-0.57	-0.93	-1.01	-0.90	-0.89
1988	-0.55	-0.62	-0.64	-0.91	-0.90	-0.90	-0.89
1989	-0.52	-0.60	-0.63	-0.92	-1.04	-0.95	-0.89
1990	-0.54	-0.62	-0.62	-0.90	-0.90	-0.90	-0.89
1991	-0.52	-0.60	-0.64	-0.88	-0.90	-0.90	-0.90
Avg	-0.34	-0.40	-0.47	-0.79	-0.92	-0.90	-0.88

SJR @ Brandt Bridge

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.10	0.95	0.67	-0.12	0.00	0.16	0.07
1977	0.00	0.72	0.76	0.08	-0.04	0.16	0.23
1978	3.97	3.97	3.09	1.50	0.24	0.10	0.22
1979	1.07	3.41	3.83	0.20	-0.06	0.06	0.15
1980	1.29	3.91	1.70	1.53	0.48	0.13	0.25
1981	0.22	1.26	0.95	-0.05	-0.22	0.06	0.07
1982	7.44	7.44	4.93	2.41	0.37	0.25	0.99
1983	5.55	5.55	5.92	9.83	3.92	0.27	1.47
1984	0.56	2.10	2.21	0.13	-0.05	0.13	0.18
1985	0.22	1.26	1.01	-0.05	-0.22	0.04	0.08
1986	2.38	2.38	2.05	1.83	0.11	0.11	0.16
1987	0.12	1.03	0.77	-0.12	-0.21	0.08	0.09
1988	0.10	0.92	0.74	0.00	0.00	0.13	0.21
1989	0.16	1.14	1.10	0.00	-0.22	0.00	0.08
1990	0.16	1.11	1.03	0.02	0.04	0.12	0.06
1991	0.28	1.42	1.09	0.10	0.06	0.07	0.21
Avg	1.48	2.41	1.99	1.08	0.26	0.12	0.28

Department of Water Resources, Delta Modeling Section

Table 2-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 1C

Grant Line Canal @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.01	-0.50	-0.55	1.00	1.20	1.48	1.38
1977	-0.09	-0.52	-0.48	1.32	1.15	1.48	1.59
1978	1.93	1.93	1.45	2.03	1.51	1.41	1.44
1979	0.50	-0.42	-0.48	1.36	1.11	1.36	1.42
1980	0.60	-0.41	0.75	1.99	1.70	1.46	1.47
1981	0.08	-0.47	-0.50	1.14	0.82	1.30	1.36
1982	2.74	2.74	2.15	2.47	1.58	1.45	1.74
1983	1.95	1.95	1.98	3.47	3.25	1.39	2.15
1984	0.25	-0.45	-0.49	1.40	1.12	1.46	1.44
1985	0.06	-0.48	-0.54	1.14	0.83	1.27	1.39
1986	1.18	1.18	0.98	2.22	1.42	1.43	1.42
1987	0.00	-0.50	0.45	1.01	0.84	1.34	1.40
1988	-0.02	-0.49	-0.52	1.19	1.19	1.45	1.56
1989	0.02	-0.49	-0.53	1.19	0.82	1.18	1.38
1990	0.02	-0.50	0.48	1.22	1.27	1.43	1.36
1991	0.10	-0.48	0.52	1.36	1.31	1.32	1.56
Avg	0.58	0.13	0.11	1.59	1.32	1.39	1.50

Grant Line Canal @ West End

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.27	-0.53	-0.57	1.02	1.27	1.47	1.41
1977	-0.32	-0.55	-0.51	1.36	1.16	1.47	1.53
1978	0.87	0.87	0.56	1.86	1.46	1.40	1.39
1979	0.03	-0.45	0.49	1.29	1.09	1.36	1.37
1980	0.09	-0.44	0.17	1.82	1.62	1.44	1.41
1981	-0.21	-0.50	-0.52	1.18	0.85	1.23	1.32
1982	1.73	1.73	0.98	2.25	1.52	1.40	1.59
1983	1.17	1.17	1.13	2.06	2.93	1.30	1.99
1984	-0.11	-0.47	-0.51	1.33	1.08	1.44	1.39
1985	-0.22	-0.51	-0.55	1.18	0.87	1.19	1.35
1986	0.42	0.42	0.29	2.03	1.46	1.42	1.37
1987	-0.26	-0.53	-0.48	1.02	0.87	1.33	1.42
1988	-0.27	-0.52	-0.55	1.27	1.23	1.45	1.51
1989	-0.24	-0.51	-0.55	1.26	0.86	1.12	1.34
1990	-0.25	-0.52	-0.52	1.27	1.31	1.44	1.41
1991	-0.20	-0.50	-0.54	1.41	1.35	1.35	1.50
Avg	0.12	-0.12	-0.17	1.48	1.31	1.36	1.46

Appendix 3

Alternative 2B

Delta Modeling Assumptions & Results

Figure 3-1
Alternative 2B

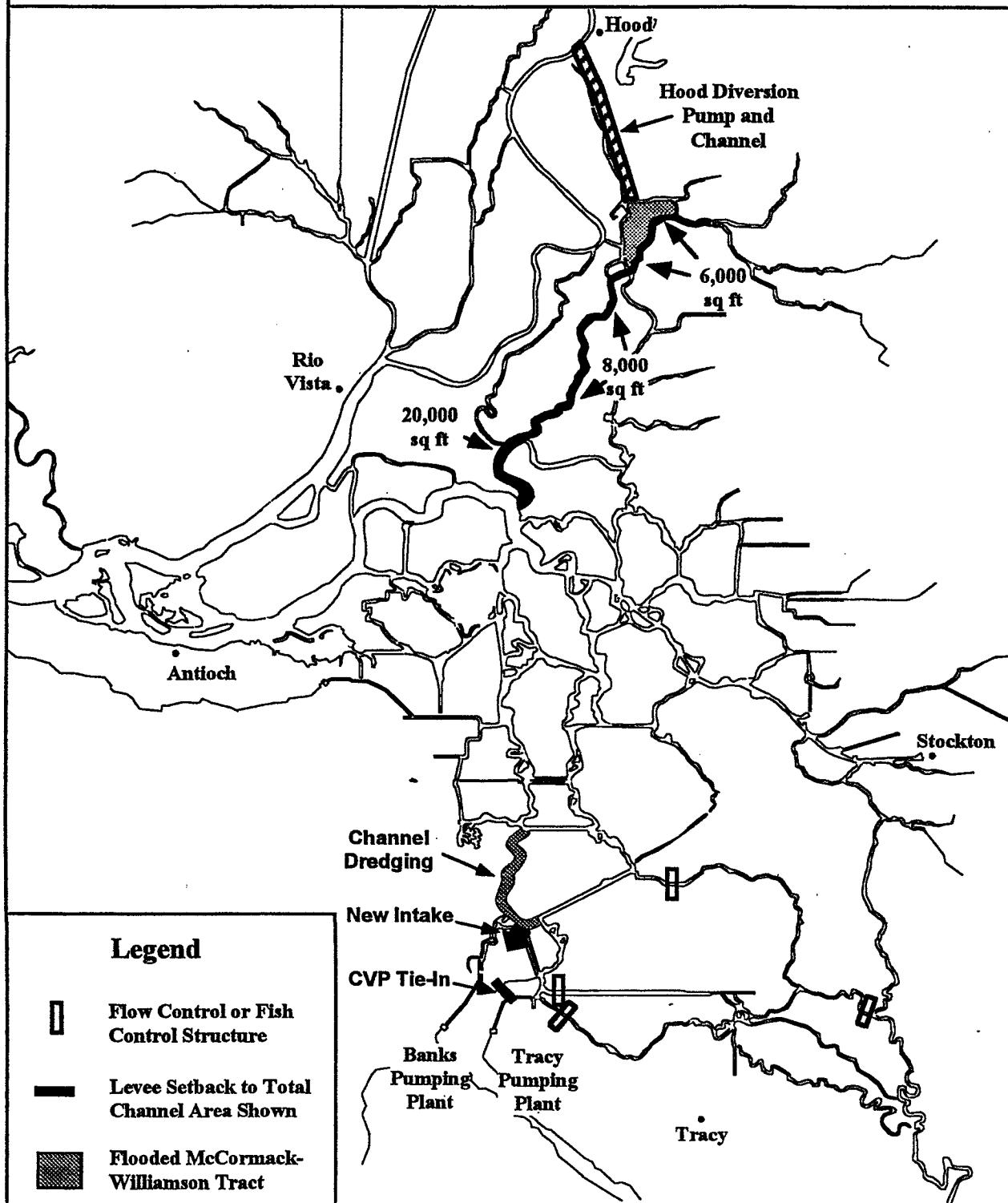


Table 3-1
Delta Hydrology for Alternative 2B (DWRSIM Study 532)
Water Years 1976 - 1991

(values in cfs)

Sacramento River Inflow at I Street

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	24,805	19,295	17,753	17,902	20,995	19,218	9,768	10,422	16,332	18,630	12,455	10,248
1977	10,339	7,990	8,095	12,177	21,678	7,138	8,887	7,510	11,520	7,698	6,285	7,861
1978	7,825	5,494	12,905	42,842	43,797	43,699	32,740	15,243	15,930	20,457	20,466	11,580
1979	12,434	13,148	13,399	26,485	41,663	35,184	18,399	13,000	20,644	23,776	18,199	12,327
1980	12,643	15,799	20,564	53,540	66,452	34,096	16,819	14,952	15,014	20,234	16,394	11,514
1981	14,393	13,075	16,197	23,854	28,969	32,318	17,463	13,000	13,722	23,367	18,091	12,215
1982	12,362	28,236	61,457	46,219	63,034	64,404	70,089	37,137	21,753	16,339	13,692	18,003
1983	27,040	39,610	57,049	60,141	83,437	82,260	69,237	54,223	54,990	22,576	19,262	26,808
1984	25,005	63,848	83,231	47,513	36,965	36,605	16,655	14,734	18,948	24,257	17,499	11,981
1985	12,195	37,873	23,635	17,708	22,591	23,025	13,613	15,297	14,222	23,204	17,523	11,729
1986	11,643	9,559	15,551	22,576	97,436	67,347	17,906	13,271	12,692	19,255	17,710	11,556
1987	12,872	12,057	13,204	17,147	23,189	29,707	12,740	13,000	13,743	23,072	17,931	12,847
1988	9,276	6,457	16,771	25,900	16,581	12,358	9,538	9,608	13,798	10,896	6,352	8,042
1989	7,837	9,032	9,090	12,072	11,386	43,417	24,031	13,819	14,181	23,602	18,421	12,232
1990	12,586	9,368	9,720	21,388	16,448	14,108	11,869	7,000	14,291	10,202	6,430	8,158
1991	9,178	6,965	7,280	7,397	13,142	30,749	15,447	8,764	10,409	9,130	11,322	9,176

San Joaquin River at Vernalis

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3,510	1,787	2,025	1,643	2,123	2,183	2,212	1,706	832	643	820	1,276
1977	2,824	2,189	1,636	1,300	1,332	1,533	1,791	1,770	710	881	831	1,084
1978	1,265	1,412	1,481	3,488	7,391	11,484	16,182	13,423	8,277	3,045	1,824	2,782
1979	4,272	2,279	2,104	4,135	7,822	8,124	6,320	7,088	3,310	1,715	1,667	2,066
1980	2,902	1,744	2,145	11,878	19,212	14,038	7,098	8,679	8,133	3,873	1,866	2,635
1981	4,680	2,049	1,834	2,115	2,675	2,622	2,866	2,258	1,420	856	924	1,510
1982	2,000	1,665	2,032	6,802	14,473	14,255	27,770	18,958	10,649	3,511	3,011	5,833
1983	8,609	8,636	18,028	23,028	35,786	41,075	21,185	22,672	37,536	15,069	3,417	7,527
1984	7,718	13,528	20,845	13,480	8,731	6,347	4,301	4,563	2,528	1,807	1,889	2,253
1985	2,000	1,916	2,071	1,873	2,524	2,430	2,923	2,462	1,420	905	924	1,554
1986	2,000	1,547	1,652	2,041	24,101	25,513	11,079	10,191	9,318	1,714	1,810	2,005
1987	3,583	1,683	1,794	1,695	1,955	2,354	2,444	1,852	837	807	896	1,455
1988	1,848	1,385	1,243	1,219	1,332	1,398	2,158	1,795	712	447	741	1,080
1989	1,193	1,274	1,287	1,222	1,341	1,684	2,661	2,637	710	955	862	1,392
1990	1,313	1,273	1,179	1,228	1,399	1,461	2,632	2,355	710	551	672	1,285
1991	1,247	1,239	1,149	1,137	1,176	2,445	3,198	2,581	715	600	658	1,200

Department of Water Resources, Delta Modeling Section

Table 3-1 (cont.)
Delta Hydrology for Alternative 2B (DWRSIM Study 532)
Water Years 1976 - 1991

(values in cfs)

Yolo Bypass Inflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	146	0	49	16	18	163	118	81	67	49	407	168
1977	49	34	49	65	54	146	168	537	67	146	81	34
1978	49	202	764	14,182	6,842	16,800	1,042	49	67	244	81	50
1979	65	118	33	797	648	228	50	65	67	114	49	50
1980	65	101	1,057	31,177	43,629	15,044	50	211	286	211	211	50
1981	65	34	146	488	594	195	50	65	101	98	81	50
1982	63	3,260	23,224	20,736	22,111	5,139	36,569	293	67	65	49	17
1983	130	1,613	10,571	20,866	58,628	113,532	15,444	3,058	840	49	49	50
1984	33	5,428	46,562	14,979	882	553	118	81	67	49	49	50
1985	1,382	1,109	49	146	216	65	50	65	67	49	49	50
1986	49	303	683	49	88,770	55,117	1,025	65	67	49	49	50
1987	65	34	98	146	288	423	84	81	67	49	49	50
1988	33	118	488	1,236	108	65	84	65	50	49	49	50
1989	65	84	228	81	90	537	101	81	67	49	49	17
1990	16	50	33	325	756	33	168	49	67	49	49	50
1991	65	0	65	33	126	748	50	65	67	49	49	50

Contra Costa Canal Diversion

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	220	187	148	120	103	197	0	145	249	164	168	279
1977	241	66	49	115	162	197	180	241	249	324	273	279
1978	241	193	177	143	162	99	111	220	281	511	538	464
1979	413	183	172	120	103	200	0	220	474	329	356	264
1980	236	183	146	120	63	99	0	220	418	327	355	264
1981	236	188	146	120	103	99	0	220	430	332	356	264
1982	236	185	145	120	103	84	0	220	479	327	355	264
1983	233	185	145	120	103	99	0	220	410	329	356	279
1984	223	143	181	122	104	99	0	220	435	329	356	281
1985	224	183	145	120	103	99	0	220	434	330	356	264
1986	237	150	145	120	56	150	0	220	420	327	355	264
1987	234	183	145	120	103	99	0	0	437	329	338	264
1988	96	71	99	120	103	99	0	220	281	153	231	103
1989	213	183	145	120	103	99	111	220	481	511	538	264
1990	213	183	145	120	103	197	0	241	249	250	233	166
1991	184	193	177	143	162	197	180	241	249	324	273	279

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Table 3-1 (cont.)
Delta Hydrology for Alternative 2B (DWRSIM Study 532)
Water Years 1976 - 1991

(values in cfs)

Banks Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	10,019	8,385	7,349	5,767	6,775	5,851	1,415	1,507	4,598	10,300	7,515	3,014
1977	4,215	4,113	4,049	6,901	9,879	753	607	458	491	337	198	1,778
1978	766	1,636	6,286	10,156	10,245	10,179	5,574	3,228	4,307	10,300	10,152	4,988
1979	6,640	6,001	5,841	10,300	10,158	7,352	2,534	2,176	4,838	10,300	8,547	5,075
1980	5,841	7,375	10,300	10,108	9,990	7,254	2,459	2,611	4,351	9,575	7,353	5,366
1981	8,283	5,531	7,904	10,300	6,991	6,858	2,116	1,651	2,726	10,300	8,014	4,655
1982	5,357	10,300	10,300	10,278	8,474	7,346	7,121	5,852	7,382	4,070	5,425	10,300
1983	10,300	10,133	7,218	4,053	4,426	4,337	5,647	5,292	7,359	8,396	9,380	7,450
1984	5,292	4,662	4,302	4,404	5,479	5,766	2,225	1,969	3,935	9,503	7,046	5,187
1985	6,001	10,300	10,300	8,954	6,889	5,926	1,820	2,003	2,805	10,300	7,624	4,410
1986	5,222	4,514	7,894	10,212	10,256	10,189	3,442	2,811	4,486	8,371	7,276	4,935
1987	6,616	4,194	6,272	10,300	7,419	7,399	1,674	1,405	2,619	10,300	7,861	5,060
1988	1,967	903	8,485	10,288	5,294	3,053	1,391	229	467	220	213	1,266
1989	523	3,550	3,702	4,631	156	10,237	2,629	1,899	2,703	10,245	8,167	4,685
1990	4,451	1,132	1,185	10,251	5,875	3,685	1,632	1,237	1,818	1,417	312	1,464
1991	1,556	1,904	2,142	1,561	1,890	8,235	1,950	1,315	85	386	2,882	2,055

Tracy Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	4,304	2,781	1,985	959	1,132	1,878	1,415	1,483	1,551	881	1,252	4,185
1977	2,118	1,758	1,387	2,018	557	972	1,289	727	763	46	1,286	2,762
1978	1,490	1,253	3,974	4,207	4,258	2,594	3,105	3,228	4,307	953	4,570	4,522
1979	4,389	4,289	4,207	4,207	4,239	3,509	2,534	2,176	3,687	4,599	4,599	4,488
1980	4,369	4,279	4,207	4,207	4,244	1,787	2,459	2,611	4,351	3,545	4,599	4,486
1981	4,368	4,279	4,207	4,207	2,533	3,068	2,116	300	2,726	4,599	4,599	4,475
1982	4,030	4,276	4,207	4,207	4,272	2,879	2,795	3,610	4,600	4,599	4,599	4,513
1983	4,384	4,286	2,821	1,246	1,261	1,886	2,984	3,562	4,600	4,599	4,599	3,275
1984	1,332	1,606	2,770	1,227	1,437	3,196	2,225	1,969	3,935	4,599	4,599	4,503
1985	4,378	4,283	4,207	4,207	4,252	3,075	1,820	2,003	2,805	4,599	4,599	4,410
1986	3,183	2,408	4,207	4,207	4,228	4,225	2,940	2,499	3,700	927	4,599	4,393
1987	4,312	4,254	3,660	1,002	1,103	2,155	1,674	1,404	2,619	4,599	4,599	4,445
1988	4,012	2,230	4,207	4,207	1,127	1,870	1,391	2,616	3,384	2,589	1,042	3,238
1989	1,647	2,812	3,188	4,207	794	4,225	2,629	1,899	2,703	4,599	4,599	4,378
1990	4,303	4,250	4,207	4,207	1,775	1,930	1,632	1,237	2,109	967	1,016	3,348
1991	2,153	1,773	2,017	2,144	365	4,225	1,950	1,519	1,854	970	3,434	3,447

Department of Water Resources, Delta Modeling Section

Table 3-2 (cont.)
Operation of Delta Facilities
under
Alternative 2B

**Monthly Average Flow Diverted from Sacramento River at Hood
 Into Snodgrass Slough
 (cfs)**

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	10,000	10,000	9,334	6,727	7,906	7,729	2,830	2,990	6,149	10,000	8,766	7,199
1977	6,333	5,870	5,436	8,919	10,000	1,724	1,896	1,185	1,254	382	1,484	4,540
1978	2,256	2,890	10,000	10,000	10,000	10,000	8,679	6,456	8,614	10,000	10,000	9,510
1979	10,000	10,000	10,000	10,000	10,000	10,000	5,068	4,152	8,525	10,000	10,000	9,563
1980	10,000	10,000	10,000	10,000	10,000	9,042	4,918	5,221	8,702	10,000	10,000	9,852
1981	10,000	9,810	10,000	10,000	9,524	9,926	4,232	3,302	5,453	10,000	10,000	9,130
1982	9,387	10,000	10,000	10,000	10,000	10,000	9,916	9,462	10,000	8,669	10,000	10,000
1983	10,000	10,000	10,000	5,299	5,686	6,223	8,671	8,853	10,000	10,000	10,000	10,000
1984	6,623	6,268	7,071	5,631	6,916	8,962	4,450	3,938	7,870	10,000	10,000	9,690
1985	10,000	10,000	10,000	10,000	10,000	9,001	3,640	4,006	5,610	10,000	10,000	8,820
1986	6,466	6,922	10,000	10,000	10,000	10,000	6,382	5,316	8,186	9,298	10,000	9,328
1987	10,000	8,448	9,932	10,000	8,521	9,554	3,148	2,809	5,238	10,000	10,000	9,505
1988	5,979	3,132	10,000	10,000	6,421	4,923	2,782	2,844	3,851	2,809	1,255	4,503
1989	2,170	6,362	6,890	8,839	950	10,000	5,258	3,798	5,406	10,000	10,000	9,063
1990	8,754	5,382	5,392	10,000	7,650	5,614	3,264	2,474	3,927	2,384	1,327	4,812
1991	3,709	3,678	4,159	3,705	2,255	10,000	3,900	2,833	1,939	1,356	6,316	5,502

Figure 3-2

Output Locations for Average Flows
(Arrows show sign convention for positive flow)

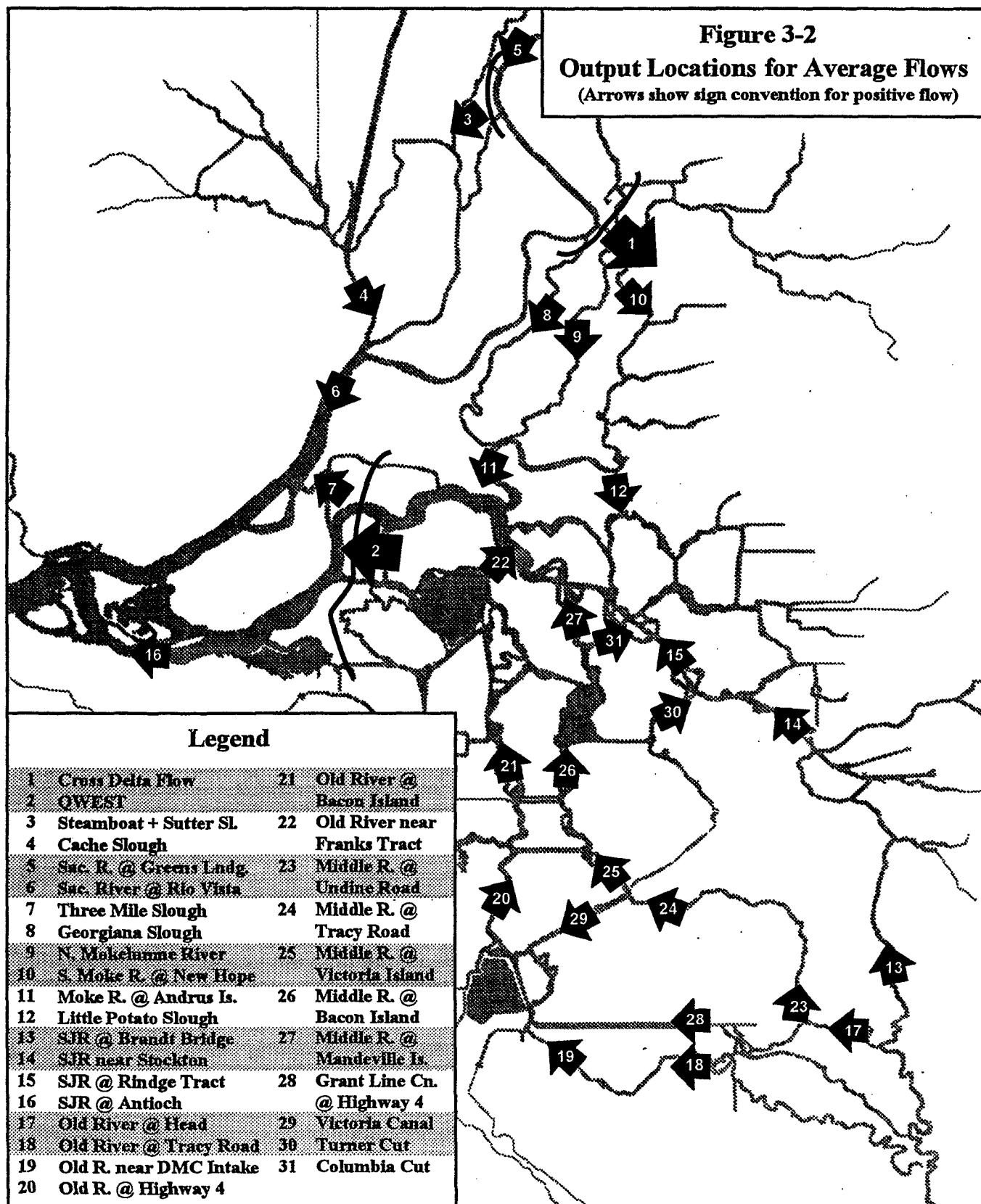


Table 3-3
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Cross Delta Flow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	13926	11225	10431	8305	9690	9302	3958	3960	4210	7647	12060	9036	7361
1977	6879	6191	5865	9368	11562	2685	3080	3079	2287	2989	3308	3233	5198
1978	4166	3374	10391	13688	13676	13615	11253	11252	7365	9418	12603	12847	8868
1979	9357	10391	10429	12229	13443	12858	6835	6845	5528	10126	13905	11972	9250
1980	9491	10797	11522	14552	15676	11905	6466	6477	6404	9338	12435	11111	8848
1981	10216	10218	10847	11958	12011	12640	6150	6150	4772	6709	13827	11944	9041
1982	9136	12515	15345	13902	15268	15320	15686	15685	12278	11265	10211	9825	11539
1983	12178	13280	14612	10634	13151	13794	14501	14502	13230	14228	12433	12043	12002
1984	8965	11922	14452	9929	10173	12066	6157	6161	5485	9346	13941	11564	9075
1985	9358	13268	11907	11060	11642	10852	5133	5139	5720	6904	13771	11718	8693
1986	8387	7324	10782	11762	18545	15711	7662	7662	6212	8583	11724	11622	8707
1987	9557	8947	10342	10944	10497	12091	4812	4814	4313	6543	13721	11882	9480
1988	6324	3719	10953	12251	7888	6081	3885	3885	3970	5428	5705	3164	5246
1989	4139	6787	7232	9289	2669	13698	7772	7771	5325	6742	13894	12084	9021
1990	9003	6033	6096	11649	8898	6888	4607	4612	3230	5551	5238	3233	5419
1991	5363	4265	4707	4353	4009	12651	5619	5622	3806	3373	4351	7482	6180
Avg	8528	8766	10370	10992	11175	11385	7099	7101	5883	7762	10820	9673	8371

QWEST

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2891	1539	2724	3414	3929	3058	2373	2373	929	-336	-1132	-167	481
1977	2564	2066	1639	1883	1999	1652	1529	1532	1833	-229	940	744	743
1978	2302	1477	1622	7574	9313	15140	20453	20455	13084	6342	1366	-2274	830
1979	1471	1999	1888	3672	10095	11476	8171	8174	6946	1897	-2033	-1381	512
1980	1503	460	-860	16799	27014	18592	8917	8918	9755	7257	1322	-163	1199
1981	1471	2027	291	460	5493	6837	4257	4261	3473	-392	-3137	-1756	319
1982	1170	35	4341	13397	24157	26472	45067	45062	23745	8836	3212	1769	2869
1983	5892	10219	29798	38735	56069	66221	31815	31815	32111	40874	13165	848	9232
1984	9658	24201	38188	21109	14835	10643	6081	6088	5179	1778	-886	177	691
1985	588	1519	-135	371	3762	5133	3882	3885	2363	-260	-3026	-1451	431
1986	1268	1906	502	920	46076	34145	13305	13333	10783	7829	1854	42	1010
1987	1407	1770	1883	1697	4650	5877	2743	2739	4496	-666	-3008	-1647	224
1988	1557	1768	-452	26	2746	1951	2396	2397	1402	-163	404	722	765
1989	2229	1293	1318	1793	3203	2124	4078	4079	2552	-545	-3182	-1966	685
1990	850	1387	1259	-1303	2834	2233	2948	2950	2399	-269	512	677	803
1991	2063	1158	1142	1715	2716	3594	3870	3877	2100	-91	653	-32	566
Avg	2430	3427	5322	7016	13681	13447	10118	10121	7697	4491	439	-366	1335

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow
 (Values in cubic feet per second)

Alternative 2B

Steamboat & Sutter Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	5952	4217	3797	5089	6011	5214	3005	3004	3145	4458	3180	1508	1255
1977	1576	791	1027	1352	5336	2275	2975	2975	2686	4421	2137	1419	1183
1978	1780	986	1224	16651	17164	16934	12078	12077	4054	3252	3944	3890	1115
1979	1305	1319	1420	7828	16092	12644	6163	6160	3870	5463	5236	3055	1309
1980	1364	2541	4797	22314	29271	12503	5491	5487	4453	2805	3910	2490	1077
1981	1903	1361	2733	6418	9324	11031	6034	6034	4295	3551	5026	3002	1376
1982	1418	8649	26466	18460	27424	28115	31357	31357	14030	5436	2920	1693	3203
1983	8053	15016	24229	28493	41054	40051	31537	31537	23318	23094	5215	3595	7970
1984	8729	29885	40079	21430	15243	13939	5569	5568	4835	4970	5492	2863	1206
1985	1199	14090	6264	3478	5839	6526	4465	4464	5034	3725	4966	2809	1312
1986	1436	1068	2422	5784	46425	29775	5391	5392	3615	1937	3749	2945	1200
1987	1438	1505	1362	3207	6833	9739	4159	4158	4517	3652	4914	2949	1470
1988	1313	1329	3018	7410	4593	3258	2932	2932	2889	4335	2522	1492	1241
1989	1802	1048	837	1348	4646	16912	8884	8885	4432	3797	5118	3120	1418
1990	1617	1644	1794	5182	3960	3783	3796	3795	1878	4504	2409	1497	1204
1991	1836	1302	1226	1504	4867	10057	5220	5219	2502	3610	2331	1756	1333
Avg	2670	5422	7668	9747	15255	13922	8691	8690	5597	5188	3942	2505	1805

Cache Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1667	1041	971	1407	1609	1399	660	659	441	687	259	434	185
1977	214	82	173	402	1472	637	658	657	952	709	95	21	114
1978	339	358	1128	20210	12060	22083	4357	4357	791	343	714	693	20
1979	146	337	263	3491	5827	3821	1578	1577	774	977	973	457	59
1980	256	669	2510	38064	52757	18419	1362	1360	1131	483	722	452	10
1981	330	244	785	2461	3178	3344	1465	1464	873	445	872	442	121
1982	234	5697	30905	26769	29969	13867	45511	45508	3932	1049	268	53	695
1983	2268	6141	17576	29697	70893	125433	24311	24312	9380	6819	909	589	2038
1984	2295	13951	58325	21037	5221	4426	1418	1417	1018	888	983	403	41
1985	1528	5293	1843	1179	1847	1985	1029	1030	1044	465	828	382	124
1986	210	498	1419	2024	102890	63785	2271	2282	673	-33	474	382	98
1987	188	269	320	1017	2233	3160	933	933	974	453	797	362	87
1988	150	344	1323	3732	1344	820	638	639	508	695	49	-16	61
1989	340	257	359	451	1385	5441	2324	2325	895	508	793	441	205
1990	280	379	391	1950	2080	984	933	933	306	691	66	9	76
1991	381	229	296	447	1456	3940	1332	1332	486	684	81	114	111
Avg	677	2237	7412	9646	18514	17097	5674	5674	1511	991	555	326	253

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	14736	9220	8322	11144	13016	11370	6842	6841	7202	9905	8367	3571	2958
1977	3902	2035	2568	3225	11595	5341	6837	6837	6220	9994	7054	4648	3233
1978	5469	2539	2932	33176	33894	33464	24024	24024	8649	7087	10226	10302	1965
1979	2326	3095	3313	16742	31832	25170	13262	13261	8505	11877	13549	8048	2650
1980	2567	5726	10597	43713	56653	25034	11838	11837	9610	6103	10020	6243	1558
1981	4286	3186	6127	13955	19404	22398	13134	13134	9535	8017	13127	7928	2983
1982	2905	18280	51485	36464	53066	54431	60198	60198	27539	11555	7449	3538	7935
1983	16978	29710	47049	55071	77961	76267	60583	60583	45254	44766	12352	9103	16707
1984	18285	57598	76267	41882	30049	27586	12103	12104	10606	10854	14021	7343	2175
1985	2126	27983	13588	7734	12594	14036	9874	9873	11115	8371	12975	7371	2817
1986	3146	2632	5537	12671	87782	57422	11444	11445	7812	4278	9728	7546	2142
1987	2772	3529	3187	7123	14675	20128	9280	9280	9993	8235	12828	7775	3234
1988	3204	3261	6764	15999	10116	7355	6687	6687	6632	9724	7796	4930	3427
1989	5562	2605	2141	3220	10385	33435	18675	18676	9852	8531	13321	8264	3103
1990	3746	3909	4232	11425	8819	8430	8503	8503	4427	10078	7541	4938	3237
1991	5373	3210	3036	3661	10839	20830	11468	11468	5783	8233	7498	4846	3561
Avg	6086	11157	15447	19825	30168	27669	17797	17797	11796	11101	10491	6650	3980

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	10718	7740	7012	9508	11079	9593	5404	5402	5271	7524	5385	3205	2530
1977	3028	1494	1933	2812	9931	4298	5328	5328	5191	7434	3331	2352	2272
1978	3294	2068	3284	45622	37558	47426	22326	22327	7226	5445	6925	6365	2220
1979	2655	2602	2654	16059	29949	22505	11246	11236	6854	9414	8832	5499	2543
1980	2886	4794	10242	71254	95868	37099	10010	9998	8153	4936	6937	4716	2178
1981	3768	2549	5198	12689	17407	19865	10858	10856	7544	5888	8434	5395	2710
1982	2925	18967	69619	54574	70043	55322	91078	91072	24458	9558	5065	3129	6103
1983	14679	28281	53160	71754	130271	183549	70071	70069	43464	40498	9065	6450	14350
1984	15633	57314	116089	52531	27653	24825	10127	10122	8514	8573	9196	5192	2367
1985	3904	25932	11742	6933	11156	12390	8033	8030	8832	6198	8325	5074	2609
1986	2884	2372	5463	11458	169836	107286	10818	10838	6404	3058	6423	5291	2439
1987	2903	2786	2626	6302	13002	17983	7439	7436	7957	6056	8243	5249	2817
1988	2553	2569	6212	15548	8638	5992	5284	5281	5023	7343	3925	2396	2276
1989	3319	2067	1852	2864	8714	30325	15841	15843	7753	6350	8468	5561	2892
1990	3245	3088	3306	10313	8604	6996	6889	6887	3332	7569	3771	2434	2249
1991	3479	2396	2353	3034	9081	19315	9483	9479	4441	6310	3638	3133	2499
Avg	5117	10439	18922	24578	41174	37798	18765	18763	10026	8885	6623	4496	3441

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow
 (Values in cubic feet per second)

Alternative 2B

Three Mile Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1483	-1701	-1483	-1493	-1494	-1562	-1420	-1416	-1652	-1995	-1927	-1651	-1518
1977	-1181	-1287	-1384	-1383	-1742	-1506	-1558	-1554	-1503	-1956	-1510	-1478	-1457
1978	-1266	-1428	-1459	-2113	-1564	-995	672	673	157	-832	-1605	-2173	-1452
1979	-1335	-1349	-1385	-1720	-1163	-741	-797	-787	-759	-1742	-2237	-1964	-1519
1980	-1359	-1733	-2207	-1587	-914	-154	-631	-624	-404	-650	-1607	-1730	-1390
1981	-1384	-1347	-1768	-2096	-1513	-1386	-1404	-1394	-1362	-1918	-2396	-2018	-1556
1982	-1418	-2427	-3531	-1499	-350	-551	2221	2220	1121	-667	-1220	-1349	-1300
1983	-1343	-1125	-1134	-1916	2153	-395	874	876	1816	3268	175	-1652	-814
1984	-793	99	-45	-233	-399	-969	-1092	-1083	-1148	-1718	-2074	-1704	-1482
1985	-1520	-2394	-2155	-1835	-1517	-1358	-1317	-1308	-1599	-1914	-2373	-1954	-1531
1986	-1401	-1373	-1753	-1984	-2321	-260	27	30	-156	-467	-1506	-1730	-1430
1987	-1356	-1403	-1381	-1597	-1460	-1470	-1465	-1460	-1248	-1965	-2363	-1993	-1577
1988	-1321	-1389	-1930	-2277	-1552	-1537	-1410	-1406	-1557	-1940	-1604	-1486	-1456
1989	-1256	-1438	-1427	-1398	-1473	-2445	-1657	-1652	-1512	-1958	-2405	-2060	-1502
1990	-1463	-1476	-1516	-2265	-1522	-1549	1404	-1398	1311	-1970	-1580	-1494	-1453
1991	-1282	-1478	-1482	-1418	-1565	-1872	-1391	-1382	-1412	-1863	-1560	-1630	-1500
Avg	-1323	-1453	-1486	-1436	-1150	-1103	-735	-729	-783	-1268	-1737	-1754	-1434

Georgiana Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2305	1212	1079	1572	1772	1555	1112	1114	1185	1451	1823	1253	1101
1977	1169	306	414	441	1549	947	1163	1163	1085	1693	1438	1153	1046
1978	1279	472	379	3724	3687	3634	2573	2573	891	768	1955	2021	994
1979	1052	380	413	2243	3460	2860	1758	1767	1154	1562	2267	1804	1115
1980	1100	783	1514	4573	5692	2858	1539	1550	1166	607	1951	1612	941
1981	1345	393	833	1954	2479	2714	1903	1905	1444	1212	2248	1799	1163
1982	1147	2508	5348	3928	5269	5342	5766	5766	2793	1232	1654	1241	1749
1983	2165	3275	4610	5360	7485	7593	5872	5872	4361	4195	1980	1891	1987
1984	2326	5645	7385	4296	3254	3096	1692	1698	1517	1437	2290	1715	1044
1985	1066	3261	1901	1063	1636	1853	1479	1482	1686	1254	2236	1740	1128
1986	1153	392	770	1771	8583	5724	1269	1270	882	362	1902	1740	1033
1987	1128	485	395	939	1973	2537	1446	1449	1475	1263	2227	1782	1208
1988	1067	573	946	2258	1457	1144	1092	1094	1103	1539	1603	1186	1073
1989	1286	413	328	447	1715	3695	2499	2498	1503	1300	2263	1834	1177
1990	1256	638	688	1647	1249	1262	1330	1332	743	1585	1563	1192	1053
1991	1314	573	534	640	1741	2655	1705	1709	952	1408	1527	1355	1137
Avg	1385	1332	1721	2304	3313	3092	2137	2140	1496	1429	1933	1582	1184

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

North Mokelumne River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	9957	8562	7945	5796	6825	6646	2384	2382	2410	5002	8366	6434	5197
1977	4782	4896	4534	7484	8276	1362	1609	1611	955	901	1475	1691	3458
1978	2453	2479	8580	10529	9786	10110	8830	8831	5665	7058	8686	8882	6524
1979	6939	8409	8342	9114	10106	9643	4844	4848	3877	6975	9511	8383	6747
1980	6987	8392	8523	11166	12124	9073	4849	4855	5433	8065	9121	8381	7130
1981	7535	8334	8527	8826	8256	9331	3812	3815	2788	4407	9445	8356	6549
1982	6714	8918	9451	12393	13941	12983	17729	17728	10820	9400	7693	7771	8984
1983	8647	10230	13858	10730	13793	17380	10918	10919	12662	11398	9680	9423	9500
1984	5830	9425	13382	7346	7987	8774	4474	4482	3955	6931	9779	8387	6941
1985	7085	9125	8734	8641	9004	8084	3415	3418	3362	4532	9419	8229	6291
1986	6102	6015	8618	9091	20493	14040	6578	6579	5432	7506	8433	8553	6824
1987	7115	7203	8464	8561	7529	8707	2811	2813	2264	4242	9415	8312	6860
1988	4424	2758	8639	8732	5462	4101	2284	2287	2282	3077	3287	1600	3476
1989	2390	5377	5845	7437	913	9336	4518	4524	3248	4519	9494	8436	6545
1990	6454	4482	4450	8475	6614	4893	2777	2781	2077	3141	2947	1684	3639
1991	9385	3014	3473	3104	1961	9240	3250	3257	2311	1509	2240	5035	4167
Avg	6050	6726	8210	8589	8942	8981	5318	5321	4346	5541	7437	6845	6177

South Mokelumne River @ New Hope

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2040	1786	1669	1248	1459	1423	554	550	565	1089	1759	1334	1075
1977	969	1039	975	1558	1736	346	403	402	264	275	282	341	714
1978	493	562	1778	2240	2077	2136	1838	1838	1188	1476	1826	1867	1351
1979	1400	1732	1729	1914	2130	2027	1052	1044	842	1479	2009	1757	1400
1980	1420	1744	1791	2388	2619	1923	1051	1044	1164	1679	1938	1772	1493
1981	1522	1721	1777	1856	1754	1974	854	849	640	967	1995	1749	1357
1982	1374	1884	2071	2638	2998	2774	3867	3867	2257	1971	1623	1640	1895
1983	1807	2155	2951	2340	3091	3978	2365	2365	2694	2409	2036	2022	2000
1984	1250	2077	2963	1619	1723	1876	987	980	876	1475	2079	1765	1449
1985	1453	1935	1834	1800	1888	1707	770	765	760	992	1989	1720	1302
1986	1250	1270	1795	1901	4737	3037	1383	1384	1156	1564	1778	1806	1424
1987	1443	1504	1754	1781	1598	1843	647	644	540	933	1987	1739	1424
1988	906	619	1797	1834	1180	903	532	530	533	709	673	321	720
1989	478	1142	1235	1548	263	1994	1007	1002	733	993	2007	1766	1353
1990	1322	968	964	1776	1402	1065	638	634	478	723	601	332	754
1991	687	671	764	688	478	1950	736	731	533	390	450	1045	863
Avg	1238	1426	1740	1821	1946	1935	1168	1164	951	1195	1565	1436	1286

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow
 (Values in cubic feet per second)

Alternative 2B

Mokelumne River @ Andrus Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	10852	8633	7955	6480	7575	7188	2956	2987	2958	5390	8671	6586	5380
1977	5193	4593	4299	7025	8636	1895	2261	2285	1652	1916	2203	2240	3791
1978	3146	2522	7922	12856	12118	12599	10654	10655	6105	6968	9148	9352	6498
1979	7026	7827	7733	10131	12314	11324	5929	6004	4567	7370	10070	8742	6775
1980	7086	8094	8777	14404	16520	11013	5779	5864	6007	7805	9581	8623	7016
1981	7820	7757	8214	9471	9502	10737	4960	5002	3634	4661	9948	8695	6638
1982	6853	10004	12947	14891	17645	16987	22193	22194	12680	9610	8072	7822	9476
1983	9664	12181	17204	15397	20459	24192	15615	15616	15928	14914	10586	9852	10367
1984	7407	13774	19358	10710	10234	10636	5450	5512	4824	7219	10362	8713	6894
1985	7103	10863	9340	8578	9460	8877	4238	4283	4317	4824	9925	8545	6384
1986	6308	5666	8260	9641	27425	18507	7273	7277	5806	7097	8884	8882	6809
1987	7230	6800	7828	8415	8429	10011	3623	3661	3205	4558	9930	8649	6945
1988	4736	2867	8402	9675	6053	4525	2862	2894	2832	3771	3941	2176	3813
1989	3093	5078	5406	6983	2201	11406	6064	6106	4077	4865	10009	8797	6669
1990	6679	4458	4433	8857	6973	5356	3508	3549	2414	3868	3616	2229	3939
1991	4005	3068	3429	3233	3124	10512	4280	4330	2778	2293	2963	5388	4484
Avg	6513	7137	8844	9797	11167	10985	6728	6764	5237	6071	7994	7206	6367

Little Potato Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3390	2856	2660	2124	2442	2348	996	963	991	1860	2980	2324	1907
1977	1642	1581	1550	2466	2881	694	781	757	551	688	691	775	1345
1978	993	931	2771	4018	3580	3514	2616	2616	1522	2088	3002	3235	2282
1979	2274	2636	2675	3261	3636	3251	1664	1593	1179	2380	3410	3033	2375
1980	2352	2762	3021	3983	4140	2813	1597	1521	1640	2349	3152	2976	2452
1981	2494	2617	2853	3176	2976	3337	1521	1478	1097	1638	3414	3027	2339
1982	2319	3280	4005	4384	4637	4380	5150	5150	3055	2779	2594	2661	3083
1983	2892	3557	4295	3382	4169	5071	3568	3568	3686	2856	2807	3309	3035
1984	1917	3358	4580	2557	2740	3060	1617	1562	1358	2360	3466	2974	2416
1985	2437	3457	3166	2973	3079	2842	1324	1283	1332	1685	3407	2975	2253
1986	2120	1963	2882	3271	6933	4470	1908	1909	1547	2104	2916	3036	2390
1987	2366	2318	2715	2884	2700	3156	1168	1132	908	1619	3420	3012	2444
1988	1579	1025	2953	3278	2014	1553	969	938	951	1321	1293	746	1344
1989	973	1791	1943	2458	683	3664	1855	1812	1258	1716	3437	3067	2346
1990	2279	1562	1586	3071	2355	1811	1133	1095	808	1349	1182	767	1395
1991	1298	1116	1271	1188	1011	3385	1321	1275	900	845	952	1879	1574
Avg	2083	2301	2808	3030	3124	3084	1824	1791	1424	1852	2633	2487	2186

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3498	1772	253	252	318	298	595	2110	1546	-79	27	308	376
1977	2804	2181	268	84	16	406	526	1641	1687	269	61	463	614
1978	1230	1404	78	693	2729	4603	7067	7067	5679	3771	817	335	906
1979	4231	2275	266	1060	3054	3234	2584	6246	6941	912	221	307	658
1980	2889	1737	184	5016	8656	6082	2963	7020	3659	3776	1357	439	971
1981	4641	2036	133	157	482	448	808	2767	2111	139	-173	195	418
1982	1984	1662	148	2555	6277	6190	13080	13080	8640	5220	1198	956	2728
1983	3542	3456	8059	10738	17476	20468	9653	9653	10348	18181	7701	1081	3628
1984	7688	5877	9533	5861	3598	2362	1511	4214	4417	655	251	432	751
1985	1988	1919	127	117	371	410	840	2804	2283	139	-141	222	463
1986	1973	1544	48	110	10765	11314	4668	4671	4213	4338	319	391	675
1987	3540	1664	127	94	277	308	623	2293	1687	-64	-172	184	356
1988	1816	1378	-59	-94	173	207	579	2038	1667	187	143	411	579
1989	1148	1265	137	42	405	-18	668	2492	2470	123	-149	167	408
1990	1291	1263	165	-100	118	213	716	2485	2294	149	213	378	402
1991	1207	1221	210	240	296	237	905	3090	2458	266	248	252	592
Avg	2842	2041	1230	1677	3438	3548	2987	4604	3881	2374	745	408	908

SJR near Stockton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3478	1745	223	255	308	257	547	2062	1450	-200	-96	252	342
1977	2771	2157	243	99	6	374	451	1566	1644	149	-63	383	574
1978	1192	1384	90	826	2799	4581	7091	7091	5606	3656	697	253	864
1979	4190	2256	240	1126	3135	3248	2538	6200	6865	792	105	231	608
1980	2862	1716	172	5114	8765	6072	2923	6979	3596	3673	1252	363	926
1981	4601	2009	109	218	478	487	763	2721	2036	14	-296	114	372
1982	1960	1654	160	2688	6320	6276	13088	13088	8569	5126	1084	879	2701
1983	3518	3506	8095	10879	17587	20623	9660	9660	10286	18069	7586	1000	3587
1984	7654	5898	9604	5869	3612	2337	1458	4161	4335	539	129	352	699
1985	1963	1931	126	134	372	416	780	2744	2197	20	-260	146	423
1986	1940	1539	69	162	10951	11243	4640	4643	4144	4224	201	308	639
1987	3502	1636	103	115	319	314	556	2226	1605	-179	-287	103	305
1988	1781	1361	-71	-46	165	174	541	2000	1603	83	7	325	528
1989	1109	1245	126	51	414	3	600	2424	2392	15	-280	85	383
1990	1264	1247	136	-88	133	178	655	2423	2256	34	83	294	352
1991	1170	1193	186	246	286	275	853	3038	2394	161	119	171	538
Avg	2810	2030	1226	1728	3478	3554	2947	4564	3811	2261	624	329	865

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

SJR @ Rindge Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1577	424	-554	-274	-320	-391	215	1339	749	-993	-1317	-684	-419
1977	1697	1241	-212	-598	-854	181	158	979	1149	-266	-324	0	-33
1978	699	835	-753	-216	1518	3332	5823	5824	4582	2313	-549	-1232	-128
1979	2462	948	-595	-42	1806	2154	1865	4642	5214	-280	-1430	-1089	-381
1980	1448	362	-1032	3647	7048	4944	2238	5316	2786	2312	-190	-860	-109
1981	2666	769	-898	-923	-276	-269	320	1780	1349	-738	-1820	-1199	-562
1982	762	45	-1053	1488	4831	5162	11139	11139	6943	3447	39	-203	1080
1983	1959	2112	6750	9948	15781	18251	8244	8244	8691	15258	5633	449	2230
1984	5781	4996	8428	5069	2846	1451	930	2956	3092	-462	-1340	-849	-314
1985	679	291	-1065	-897	-518	-284	378	1839	1292	-740	-1778	-1127	-481
1986	821	646	-906	-946	9030	9295	3737	3742	3312	2870	-839	-915	-317
1987	1908	573	-714	-771	-326	-416	180	1422	1190	-892	-1801	-1190	-655
1988	900	805	-1129	-1186	-359	-250	236	1318	934	-529	-537	-37	-71
1989	638	432	-450	-639	338	-1140	44	1410	1483	-758	-1820	-1251	-523
1990	221	512	-336	-1257	-450	-314	289	1602	1562	-588	-432	-70	-219
1991	565	605	-195	-61	72	-690	428	2060	1591	-288	-309	-597	-153
Avg	1549	975	330	771	2510	2564	2264	3476	2870	1229	-551	-735	-66

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	4214	3077	4042	4770	5276	4441	3590	3583	2327	1393	531	1279	1804
1977	3549	3186	2863	3140	3581	2991	2870	2868	3141	1468	2168	1978	2000
1978	3367	2747	2941	9777	10838	16081	19518	19521	12652	6868	2673	-340	2071
1979	2600	3195	3103	5348	11206	12016	8755	8743	7456	3345	-74	352	1809
1980	2689	2046	1228	18323	27904	18559	9328	9324	9909	7613	2647	1329	2376
1981	2653	3193	1900	2459	6857	8085	5436	5431	4601	1229	-1024	20	1662
1982	2421	2331	7772	14986	24325	25829	42539	42534	22317	9214	-4134	2865	3976
1983	7061	11221	28497	36795	53796	66522	30720	30724	29968	37184	12654	2250	9819
1984	10234	23912	38058	21160	15072	11418	6959	6956	6079	3209	904	1631	1949
1985	1941	3810	1902	2111	5148	6368	4977	4972	3718	1361	-929	264	1763
1986	2484	3132	2128	2832	48389	34265	13006	13055	10675	7986	3063	1517	2241
1987	2570	3010	3103	3174	5984	7216	3992	3982	5489	1039	-896	115	1591
1988	2693	3004	1333	2223	4152	3315	3607	3606	2743	1521	1718	1959	2008
1989	3276	2581	2598	3062	4536	4406	5505	5503	3825	1161	-1042	-133	2019
1990	2141	2702	2600	866	4208	3607	4131	4128	3521	1434	1805	1928	2037
1991	3154	2472	2465	3005	4126	5335	5052	5048	3305	1568	1929	1365	1851
Avg	3565	4726	6658	8377	14712	14403	10624	10624	8233	5475	1891	1149	2561

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Old River @ Head

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0	0	1757	1389	1792	1800	1515	0	0	724	415	412	853
1977	0	0	1361	1213	1294	1065	1115	0	0	233	614	228	416
1978	0	0	1398	2823	4684	6811	9097	9097	7610	4280	2030	1350	1813
1979	0	0	1826	3093	4778	4869	3662	0	0	2175	1305	1233	1332
1980	0	0	1955	6883	10607	7949	4056	0	4894	4145	2346	1299	1595
1981	0	0	1695	1960	2179	2159	1958	0	0	1058	827	589	1026
1982	0	0	1888	4289	8199	8057	14684	14684	10191	5246	2125	1924	3083
1983	5055	5212	9990	12448	18389	20789	11513	11513	12213	19133	7182	2204	3845
1984	0	7656	11360	7616	5134	3961	2703	0	0	1672	1358	1322	1427
1985	0	0	1948	1750	2138	1997	1964	0	0	1056	854	576	1038
1986	0	0	1601	1938	13456	14082	6363	6360	5844	4750	1201	1275	1285
1987	0	0	1655	1593	1674	1997	1670	0	0	702	793	561	1017
1988	0	0	1297	1318	1150	1147	1459	0	0	321	79	183	420
1989	0	0	1143	1174	924	1638	1824	0	0	376	887	552	956
1990	0	0	1000	1320	1232	1164	1768	0	0	333	125	147	807
1991	0	0	928	889	865	2093	2186	0	0	252	142	266	520
Avg	316	804	2675	3231	4906	5099	4221	2603	2547	2904	1393	883	1340

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-617	-4	260	242	315	338	-523	-619	-586	287	-387	-383	321
1977	-602	-8	163	196	202	168	-505	-610	-648	-611	269	-589	-440
1978	-661	-30	224	467	722	1012	-123	-123	-124	1170	534	449	481
1979	-561	-4	344	491	724	781	-389	-632	-581	576	424	418	452
1980	-579	-18	399	1054	1754	1195	-361	-606	-292	1133	623	437	525
1981	-552	-19	279	285	350	367	-454	-609	-613	371	294	-313	367
1982	-583	-4	330	650	1254	1286	2574	2574	-16	1450	561	508	831
1983	-262	790	1615	2209	3464	4050	1920	1920	2008	3440	2007	589	1052
1984	-609	1197	1907	1176	793	618	-429	-621	-597	539	438	442	475
1985	-574	49	237	266	267	345	-446	-602	-573	376	303	-319	370
1986	-641	-8	209	280	2375	2460	-250	-245	-223	1305	399	431	437
1987	-560	-54	201	232	330	282	-490	-595	-667	285	296	-314	366
1988	-600	-30	163	224	241	143	-518	-612	-602	-524	-609	-613	-439
1989	-639	-9	174	134	124	302	-431	-577	-578	-492	320	-317	348
1990	-638	-37	156	224	206	175	-476	-595	-638	-520	-610	-621	310
1991	-629	-11	141	141	115	375	-497	-612	-607	-591	-629	-458	-391
Avg	-582	113	425	517	827	869	-87	-198	-334	512	265	-41	317

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Old River near DMC intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-632	-17	245	240	305	271	-597	-694	-709	133	-539	-463	270
1977	-622	-21	152	191	182	118	-613	-716	-705	-778	100	-699	-480
1978	-692	-40	216	499	753	817	-137	-137	-227	964	369	328	412
1979	-594	-11	332	504	730	768	-444	-689	-695	395	269	307	374
1980	-588	-28	392	1073	1808	1188	-420	-671	-380	939	476	325	451
1981	-582	-32	269	288	339	356	-532	-687	-720	195	132	-417	299
1982	-603	-2	332	704	1253	1230	2572	2572	-114	1266	401	393	779
1983	-272	813	1633	2342	3531	4175	1911	1911	1923	3274	1807	468	969
1984	-633	1201	1954	1173	792	598	-500	-690	-711	375	276	325	398
1985	-581	52	231	262	256	328	-534	-696	-705	198	147	-414	313
1986	-665	-12	203	284	2495	2294	290	-286	-322	1093	239	307	385
1987	-589	-71	188	224	327	246	-598	-704	-792	121	140	-427	288
1988	-628	-40	157	227	231	108	-603	-696	-701	-683	-783	-716	-505
1989	-675	-19	166	123	115	268	-546	-693	-706	-654	140	-425	312
1990	-656	-50	143	213	170	116	-580	-703	-683	-701	-772	722	238
1991	-661	-26	131	134	103	308	-571	-689	-702	-744	-799	-556	-464
Avg	-605	106	422	530	837	824	-155	-267	-434	337	100	-149	252

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-10584	-8313	-5675	-3906	-4549	-4564	-1092	-2192	-2484	-4458	-8413	-6307	-4670
1977	-4626	-4342	-3038	-5664	-6822	-606	-768	-1579	-893	-1164	-260	-1118	-3042
1978	-1630	-2124	-6601	-8420	-7254	-4740	180	180	483	-4022	-7399	-10221	-5895
1979	-8206	-7630	-6153	-8419	-7173	-4586	-1126	-3777	-3439	-5394	-10532	-9088	-6197
1980	-7521	-8671	-9388	-5558	-2770	-1034	-724	-3661	-495	-4138	-8528	-8148	-6210
1981	-9421	-7298	-7794	-9291	-5442	-5748	-1780	-3200	-1657	-3780	-10893	-9201	-6059
1982	-6900	-10839	-9410	-7402	-3547	-1749	2898	2899	107	-5675	-5368	-6368	-8941
1983	-7212	-6886	-295	5302	8739	10154	1668	1669	1730	3933	-5158	-9168	-5391
1984	-4848	792	2837	1285	-1386	-3811	-1408	-3366	-3147	-5117	-9923	-7921	-6229
1985	-7641	-10832	-9387	-8442	-6690	-5198	-1370	-2793	-3250	-3880	-10850	-8887	-5788
1986	-6187	-5093	-7825	-9231	-917	-839	-137	-139	-87	-3375	-6406	-8145	-5976
1987	-8124	-6276	-6184	-7190	-5041	-5659	-1427	-2638	-283	-3799	-10855	-9096	-6374
1988	-4380	-2311	-8512	-9745	-3887	-2870	-1062	-2122	-2247	-3002	-2444	-1012	-3072
1989	-1591	-4700	-4268	-5643	-8	-9651	-2736	-4061	-3056	-4157	-10824	-9321	-5953
1990	-6439	-3982	-3279	-9767	-4844	-3416	-1265	-2549	-1786	-3111	-2069	-1083	-2995
1991	-2705	-2725	-2408	-2036	-1032	-7859	-1365	-2951	-2237	-1617	-1306	-4664	-3758
Avg	-6126	-5702	-5461	-5883	-3289	-3261	-720	-1893	-1410	-3297	-6952	-6859	-5409

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Old River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-6525	-5094	-3469	-2362	-2763	-2801	-751	-1433	-1635	-2824	-5311	-3950	-2919
1977	-2873	-2674	-1864	-3434	-4159	-373	-552	-1055	-610	-836	-293	-782	-1917
1978	-1051	-1300	-4018	-4975	-4242	-2669	279	279	363	-2363	-4560	-6333	-3566
1979	-5051	-4670	-3755	-5045	-4230	-2683	-684	-2323	-2144	-3272	-6591	-5652	-3855
1980	-4641	-5312	-5725	-3157	-1291	-429	-429	-2243	-288	-2406	-5239	-5068	-3846
1981	-5813	-4473	-4764	-5634	-3286	-3467	-1140	-2020	-1107	-2402	-6851	-5729	-3775
1982	-4266	-6632	-5713	-4263	-1924	-779	2250	2249	213	3372	3331	3903	-5365
1983	-4338	-4050	151	3771	6059	7075	1406	1407	1391	2944	3023	-5601	-3185
1984	-2967	691	2115	1008	-702	-2259	-896	-2106	-1998	-3164	-6216	-4934	-3872
1985	-4719	-6612	-5719	-5119	-4058	-3141	-894	-1774	-2082	-2453	-6815	-5528	-3604
1986	-3838	-3122	-4769	-5584	-18	-37	-7	-9	-78	-1940	-4057	-5077	-3704
1987	-5019	-3853	-3779	-4364	-3039	-3426	-952	-1703	-317	-2405	-6814	-5663	-3970
1988	-2738	-1425	-5209	-5917	-2364	-1765	-716	-1372	-1450	-1931	-1671	-731	-1965
1989	-1031	-2883	-2610	-3422	22	-5866	-1716	-2540	-1957	-2614	-6791	-5781	-3685
1990	-3992	-2442	-2006	-5950	-2951	-2091	-846	-1640	-1108	-2017	-1420	-772	-1919
1991	-1712	-1674	-1471	-1219	-612	-4748	-862	-1844	-1435	-1094	-943	-2964	-2367
Avg	-3786	-3470	-3288	-3479	-1847	-1841	-407	-1133	-880	-2009	-4370	-4279	-3345

Old River near Franks Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-7630	-6241	-5230	-4422	-4894	-4806	-2773	-3242	-3243	-4010	-5943	-4943	-4252
1977	-4618	-4216	-3544	-4919	-5646	-2360	-2529	-2870	-2550	-2426	-2309	-2587	-3496
1978	-3134	-3038	-5408	-7456	-7216	-7124	-5696	-5696	-4110	-4927	-6019	-6639	-4938
1979	-6172	-5928	-5263	-6588	-7323	-6496	-3938	-5054	-4720	-4966	-6844	-6179	-5033
1980	-5825	-6161	-6262	-7971	-8449	-6037	-3878	-5118	-4043	-5228	-6422	-5970	-5155
1981	-6674	-5804	-5723	-6427	-5684	-6138	-3546	-4151	-3373	-3746	-6829	-6189	-4926
1982	-5495	-7189	-7652	-8067	-8596	-8012	-9238	-9237	-6507	-6467	-5289	-5408	-6663
1983	-6538	-7258	-7956	-6655	-8251	-9376	-7211	-7210	-7392	-7612	-6936	-6603	-6348
1984	-6076	-6494	-8296	-5482	-5539	-5986	-3726	-4550	-4390	-4845	-6808	-5949	-5093
1985	-5701	-7478	-6408	-5971	-5903	-5455	-3246	-3850	-3939	-3812	-6817	-6084	-4800
1986	-5180	-4649	-5753	-6490	-11543	-8957	-4410	-4412	-3930	-4939	-5659	-6040	-4996
1987	-6070	-5241	-5261	-5658	-5265	-5890	-3046	-3565	-2873	-3691	-6808	-6147	-5075
1988	-4244	-3131	-5889	-6567	-4270	-3597	-2736	-3187	-3190	-3348	-3307	-2533	-3466
1989	-3077	-4331	-4146	-4892	-2311	-7089	-4076	-4645	-3856	-3921	-6872	-6279	-4904
1990	-5213	-3992	-3649	-6299	-4778	-3989	-2992	-3536	-3041	-3389	-3152	-2558	-3457
1991	-3598	-3294	-3175	-3042	-2799	-6492	-3302	-3980	-3289	-2641	-2817	-4257	-3850
Avg	-5328	-5278	-5601	-6057	-6154	-6113	-4146	-4644	-4028	-4373	-5552	-5273	-4778

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Middle River @ Undine Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-258	-35	47	46	64	66	-214	-244	-203	-207	-145	-181	-207
1977	-233	-13	47	27	18	63	-198	-224	-248	-187	-242	-204	-183
1978	-233	4	33	90	259	465	19	19	66	583	286	-128	252
1979	-235	-33	52	105	268	299	-150	-263	-226	293	-114	-146	-141
1980	-244	-35	43	477	842	590	-136	-263	-65	561	319	-138	-105
1981	-238	-29	37	28	68	61	-207	-257	-225	-168	-160	-149	-181
1982	-243	-49	38	212	607	597	1292	1292	106	745	306	269	412
1983	-61	314	789	1068	1740	2045	947	947	1015	1789	1077	294	535
1984	-242	578	946	573	339	212	-171	-249	-224	-111	-105	-132	-125
1985	-242	-48	29	29	51	62	-194	-248	-221	-175	-161	-153	-181
1986	-247	-19	26	27	1161	1201	-34	-33	-3	657	124	-138	152
1987	-236	-32	32	31	55	53	-202	-238	-218	-210	-175	159	182
1988	-232	4	14	5	36	41	-229	-257	-232	-183	-181	-207	-179
1989	-227	-14	35	19	52	20	-205	-252	-220	-177	-157	-157	-198
1990	-246	-8	39	9	33	45	-204	-246	-250	-169	-180	-210	-210
1991	-230	0	42	40	50	44	-202	-249	-227	-189	-188	-181	-166
Avg	-228	37	141	174	353	367	-6	-48	-86	178	4	-108	-63

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-303	-86	-13	14	16	-22	-273	-305	-344	-379	-306	-257	-260
1977	-295	-66	-6	-2	-32	-4	-297	-321	-297	-351	-400	-307	-246
1978	-297	-42	-17	101	261	484	2	2	-29	401	113	-242	180
1979	-301	-78	-3	98	261	266	-194	-309	-328	107	-276	-251	-214
1980	-293	-86	1	486	862	557	-173	-303	-150	394	166	-242	-171
1981	-303	-83	-16	17	32	44	-250	-301	-325	-357	-334	-263	-250
1982	-293	-88	2	232	598	629	1273	1273	10	587	139	156	354
1983	-110	285	757	1117	1757	2093	927	927	937	1618	895	175	464
1984	-302	533	926	554	329	164	-238	-315	-339	-283	-277	-244	-202
1985	-290	-95	-16	19	20	35	-255	-309	-334	-354	-326	-260	-244
1986	-302	-59	-15	-20	1193	1216	-68	-67	-94	475	-288	-251	-209
1987	-301	-86	-21	-4	37	21	-281	-317	-342	-381	-326	-265	-256
1988	-292	-46	-36	-3	-3	-28	-267	-295	-316	-340	-358	-319	-255
1989	-293	-64	-11	-5	31	-12	-268	-316	-335	-339	-329	-266	-244
1990	-299	-59	-18	-19	-6	-19	-267	-309	-299	-352	-351	-320	-284
1991	-294	-53	-13	7	-2	27	-259	-307	-323	-344	-355	-288	-242
Avg	-286	-11	94	165	335	341	-56	-98	-182	6	-163	-215	-130

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Middle River @ Victoria Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-3889	-3022	-2094	-1472	-1693	-1731	-650	-1065	-1207	-1836	-3237	-2468	-1927
1977	-1916	-1693	-1195	-2062	-2476	-332	-562	-866	-592	-746	-414	-717	-1369
1978	-881	-906	-2394	-2877	-2410	-1478	100	100	101	-1259	-2712	3770	-2125
1979	-3102	-2789	-2244	-2893	-2394	-1556	-572	-1583	-1513	-1926	-3923	-3396	-2406
1980	-2862	-3134	-3289	-1727	-537	-143	-419	-1541	-342	-1298	-3029	-3077	-2384
1981	-3501	-2687	-2788	-3230	-1979	-2071	-855	-1392	-905	-1611	-4096	-3445	-2378
1982	-2658	-3841	-3307	-2458	-999	-323	1801	1801	62	-1841	-2022	-2315	-2977
1983	-2576	-2297	253	2581	4301	5111	1159	1160	1146	2305	1505	3211	-1782
1984	-2002	500	1528	697	-394	-1354	-712	-1457	-1428	-1982	-3723	-3009	-2412
1985	-2895	-3845	-3296	-2955	-2401	-1893	-719	-1260	-1458	-1637	-4072	-3332	-2284
1986	-2435	-1941	-2790	-3202	-346	336	-116	-117	-105	-1008	-2566	-3088	-2323
1987	-3068	-2351	-2261	-2570	-1835	-2060	-761	-1219	-396	-1626	-4074	-3408	-2486
1988	-1825	-972	-3026	-3391	-1480	-1153	-622	-1021	-1093	-1372	-1268	-680	-1384
1989	-864	-1813	-1618	-2058	-68	-3378	-1194	-1694	-1388	-1761	-4080	-3491	-2330
1990	-2512	-1566	-1291	-3411	-1803	-1340	-696	-1181	-900	-1420	-1126	-708	-1371
1991	-1259	-1127	-988	-834	-483	-2774	-716	-1315	-1094	-897	-837	-1973	-1621
Avg	-2390	-2093	-1925	-1991	-1019	-1009	-346	-791	-695	-1245	-2668	-2631	-2097

Middle River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-7105	-5553	-3835	-2660	-3078	-3152	-1038	-1773	-2031	-3417	-5873	-4433	-3409
1977	-3308	-2999	-2125	-3771	-4562	-593	-877	-1420	-937	-1254	-644	-1163	-2360
1978	-1395	-1591	-4409	-5429	-4695	-3046	-125	-124	-33	-2897	-5218	-7066	-4124
1979	-5630	-5108	-4136	-5490	-4681	-3087	-1005	-2798	-2692	-3967	-7280	-6292	-4373
1980	-5126	-5770	-6184	-3604	-1652	-694	-737	-2727	-675	-2997	-5869	-5684	-4362
1981	-6375	-4903	-5179	-6083	-3637	-3834	-1458	-2413	-1505	-3031	-7546	-6368	-4291
1982	-4724	-7159	-6228	-4706	-2330	-1058	2068	2068	-281	-3916	-3870	-4462	-5938
1983	-4899	-4520	-132	3776	6171	7266	1231	1232	1104	2609	3480	-6249	-3669
1984	-3502	480	1959	837	-948	-2590	-1208	-2532	-2494	-3843	-6890	-5547	-4396
1985	-5189	-7153	-6185	-5535	-4447	-3475	-1191	-2151	-2542	-3085	-7507	-6155	-4110
1986	-4287	-3479	-5182	-6028	-356	-384	-336	-336	-297	-2486	-4633	-5698	-4212
1987	-5530	-4255	-4157	-4753	-3366	-3786	-1255	-2065	-523	-3034	-7501	-6291	-4496
1988	-3110	-1687	-5626	-6369	-2660	-2042	-995	-1702	-1851	-2454	-2091	-1087	-2357
1989	-1363	-3237	-2924	-3761	-121	-6340	-2116	-3000	-2410	-3264	-7539	-6478	-4192
1990	-4431	-2782	-2303	-6394	-3272	-2408	-1137	-1999	-1492	-2539	-1857	-1134	-2335
1991	-2070	-1983	-1753	-1473	-842	-5195	-1220	-2283	-1856	-1535	-1359	-3461	-2833
Avg	-4253	-3856	-3650	-3840	-2155	-2151	-712	-1501	-1282	-2569	-4947	-4848	-3841

Table 3-3 (cont.)
Monthly Average flow
 (Values in cubic feet per second)

Alternative 2B

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-4837	-4186	-3418	-2741	-2967	-3051	-1816	-1950	-2250	-3203	-4654	-3740	-3139
1977	-2806	-2676	-2486	-3373	-3843	-1671	-1798	-1883	-1606	-2105	-1827	-1977	-2550
1978	-1961	-2037	-3757	-3991	-3336	-2064	125	125	-268	-2242	-4177	-5270	-3490
1979	3961	-3859	-3591	-4096	-3265	-2429	-1344	-1774	-1675	-3319	-5410	-4807	-3648
1980	-3840	-4323	-4749	-2261	-443	-605	-1135	-1610	-1011	-2277	-4439	-4437	-3586
1981	-4298	-3783	-4195	-4626	-3210	-3272	-1951	-2156	-1827	-2987	-5632	-4881	-3631
1982	3720	-5097	-4698	-3227	-1324	-560	2528	2528	283	-2760	-3329	3668	4237
1983	3405	-3155	201	2924	5495	6831	1343	1344	1302	3422	2288	-4661	-2741
1984	-2081	71	1703	231	-1162	-2324	-1679	-1981	-1995	-3281	-5182	-4366	-3650
1985	-3981	-5022	-4728	-4344	-3682	-3125	-1824	-2023	-2378	-3007	-5600	-4752	-3519
1986	3487	3044	4183	-4588	927	706	-541	-540	-699	-1933	3893	4456	-3537
1987	3977	-3465	-3610	3904	3083	3287	-1918	-2077	1373	-3024	5601	-4837	-3755
1988	-2816	-2064	-4461	-4816	-2767	-2455	-1782	-1910	-2108	-2674	-2575	-1953	-2543
1989	-1945	-2956	-2946	-3375	-1371	-4773	-2332	-2535	-2272	-3111	-5660	-4971	-3558
1990	3648	-2704	2619	-4881	-3081	-2657	-1836	-2006	1778	2727	-2441	-1980	-2549
1991	-2326	-2279	2323	-2130	-1790	-4088	-1838	-2068	-1978	-2216	-2179	-3245	-2818
Avg	-3319	-3161	-3116	-3075	-1806	-1802	-1112	-1282	-1352	-2340	-4055	-4000	-3309

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	848	8	1416	1109	1396	1297	2140	751	611	429	723	868	684
1977	801	-7	1125	1004	1055	762	1667	682	818	803	360	870	972
1978	843	3	1121	2324	3744	5318	9169	9169	7519	2277	980	871	1007
1979	738	17	1400	2546	3809	3767	4116	810	644	1050	774	815	934
1980	792	27	1495	5408	8113	6153	4469	785	5111	2216	1206	853	1097
1981	735	18	1350	1667	1754	1723	2516	763	673	593	456	890	762
1982	792	33	1506	3498	6352	6219	10810	10810	9957	2850	1040	999	1808
1983	5348	4130	7585	9451	13304	14983	8622	8622	9064	13653	3885	1168	2195
1984	807	5871	8537	5883	4012	3099	3204	770	654	1009	793	857	988
1985	788	-9	1664	1472	1809	1569	2486	733	595	597	486	901	784
1986	844	10	1343	1651	10059	10369	6588	6579	5924	2536	699	819	943
1987	738	51	1394	1341	1295	1613	2212	683	708	401	465	874	741
1988	784	0	1096	1113	862	904	2093	756	697	803	617	841	945
1989	804	-4	909	1029	743	1223	2301	670	621	810	483	871	769
1990	844	13	773	1093	932	854	2306	700	827	775	677	820	618
1991	803	-23	715	713	682	1522	2775	751	702	814	722	754	976
Avg	1082	634	2089	2581	3745	3836	4217	2752	2820	1976	898	879	1014

Department of Water Resources, Delta Modeling Section

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Victoria Canal

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3560	2907	2049	1475	1689	1681	329	715	799	1355	2826	2170	1638
1977	1592	1598	1160	2057	2423	303	225	503	275	297	-90	353	1092
1978	552	839	2353	3019	2689	1947	-107	-107	-177	1580	2737	3470	2279
1979	2767	2686	2210	3000	2669	1810	357	1254	1136	1943	3555	3090	2157
1980	2541	3021	3267	2239	1437	685	222	1217	150	1620	3116	2780	2181
1981	3164	2575	2742	3249	2000	2116	577	1064	528	1156	3664	3124	2096
1982	2340	3732	3290	2738	1600	988	-536	-536	-103	2367	2078	2421	3314
1983	2441	2577	503	-1400	-2508	-2957	-236	-236	-251	-775	2327	3334	2226
1984	1670	12	-592	-146	724	1495	441	1109	1031	1607	3350	2706	2173
1985	2578	3728	3258	2978	2407	1921	435	924	1068	1192	3652	3019	2009
1986	2104	1859	2754	3234	901	893	28	29	-35	1407	2186	2777	2087
1987	2735	2236	2210	2557	1872	2070	446	868	2	1149	3651	3088	2197
1988	1504	899	2964	3397	1459	1098	332	705	740	949	795	298	1094
1989	538	1723	1582	2048	96	3363	896	1348	1007	1333	3641	3167	2062
1990	2185	1482	1243	3388	1783	1296	401	844	588	980	666	326	1051
1991	933	1046	947	830	461	2809	429	982	733	469	373	1625	1342
Avg	2075	2058	1996	2166	1356	1345	265	668	468	1164	2408	2359	1937

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1859	-1358	-879	-627	-724	-735	-343	-632	-636	-861	-1327	-1031	-837
1977	-983	-857	-512	-831	-1004	-210	-294	-513	-416	-401	-256	-383	-638
1978	-468	-512	-980	-1277	-1324	-1170	-950	-950	-713	-1149	-1295	-1615	-1050
1979	-1591	-1303	-940	-1314	-1355	-1049	-564	-1259	-1302	-1095	-1651	-1441	-1065
1980	-1363	-1395	-1354	-1368	-1406	-847	-547	-1328	-615	-1184	-1474	-1330	-1096
1981	-1787	-1243	-1137	-1329	-869	-915	-464	-832	-591	-792	-1662	-1439	-1023
1982	-1202	-1691	-1404	-1325	-1283	-971	-1351	-1351	-1206	-1437	-1046	-1135	-1604
1983	-1464	-1369	-1010	-479	-979	-1375	-964	-964	-1093	-1902	-1584	-1527	-1238
1984	-1516	-627	-771	-518	-640	-855	-494	-1000	-1011	-1038	-1577	-1302	-1081
1985	-1297	-1721	-1355	-1203	-1025	-825	-405	-776	-812	-803	-1657	-1396	-990
1986	-1110	-904	-1132	-1312	-1566	-1497	-671	-670	-599	-1126	-1110	-1330	-1035
1987	-1501	-1076	-933	-1045	-782	-886	-388	-705	-330	-776	-1663	-1423	-1060
1988	-852	-526	-1211	-1359	-618	-489	-325	-604	-607	-648	-555	-359	-628
1989	-450	-829	-664	-826	-109	-1373	-598	-936	-802	-834	-1682	-1468	-1004
1990	-1083	-738	-538	-1357	-728	-569	-373	-709	-588	-660	-519	-366	-615
1991	-596	-571	-430	-371	-258	-1157	-427	-835	-682	-453	-420	-834	-733
Avg	-1195	-1045	-953	-1034	-917	-933	-572	-879	-750	-947	-1217	-1149	-981

Table 3-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 2B

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-2951	-2076	-1148	-640	-849	-852	92	-512	-483	-892	-1859	-1337	-948
1977	-1232	-1023	-323	-1078	-1423	350	211	-251	-60	118	372	72	-505
1978	-169	-273	-1358	-2151	-2172	-1938	-1385	-1385	-791	-1572	-1826	-2439	-1379
1979	-2410	-1970	-1262	-2064	-2250	-1606	-471	-1824	-1850	-1437	-2482	-2125	-1410
1980	-1988	-2129	-2054	-2348	-2395	-1195	-438	-1933	-587	-1677	-2162	-1928	-1480
1981	-2764	-1850	-1647	-2076	-1185	-1348	-223	-978	-451	-768	-2494	-2120	-1333
1982	-1685	-2702	-2272	-2310	-2219	-1716	-2115	-2115	-1798	-2168	-1342	-1546	-2430
1983	-2283	-2242	-1681	-638	-1065	-1285	-1494	-1493	-1677	-2379	-2288	-2293	-1865
1984	-2308	-839	-1311	-557	-780	-1168	-293	-1318	-1310	-1332	-2361	-1874	-1443
1985	-1874	-2787	-2088	-1822	-1487	-1106	-80	-845	-902	-799	-2488	-2044	-1266
1986	-1500	-1148	-1661	-2068	-2864	-2477	-758	-757	-558	-1552	-1491	-1929	-1366
1987	-2252	-1511	-1256	-1518	-1020	-1265	-26	-681	72	-723	-2484	-2088	-1411
1988	-965	-315	-1795	-2150	-600	-287	111	-472	-456	-471	-227	126	-477
1989	-139	-984	-674	-1066	518	-2221	-514	-1205	-881	-876	-2508	-2173	-1304
1990	-1459	783	-379	-2096	-899	-477	6	-689	-437	-495	-155	111	-459
1991	-446	-409	-131	-34	220	-1818	-130	-967	-611	-25	46	-902	-710
Avg	-1652	-1440	-1315	-1539	-1279	-1276	-469	-1089	-799	-1066	-1609	-1531	-1237

Department of Water Resources, Delta Modeling Section

Figure 3-3
Output Locations for Monthly Average Electrical Conductivity

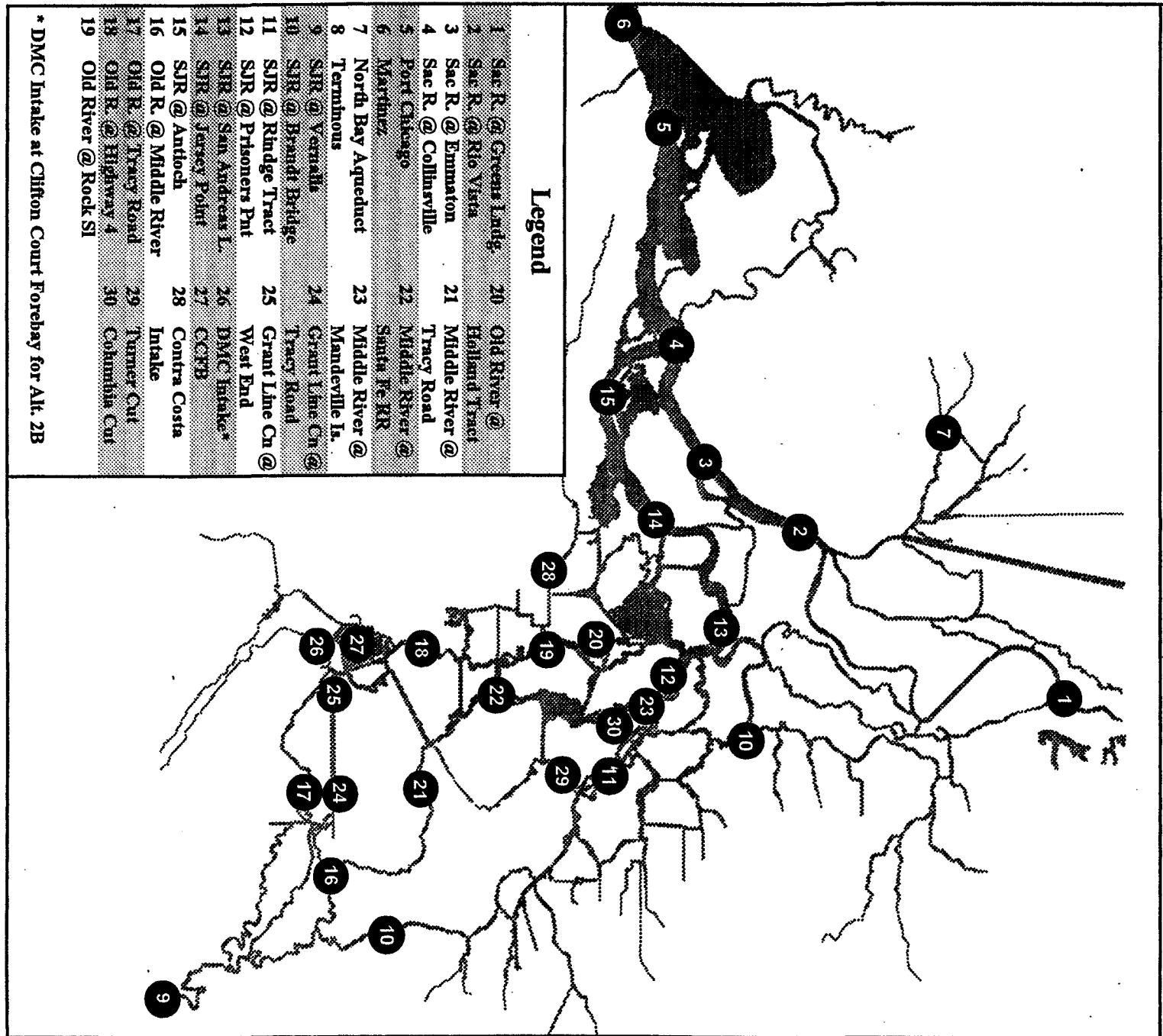


Table 3-4
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	150	150	150	150	150	150	151	151	151	151	151	152
1977	151	150	150	151	150	151	151	151	152	154	154	151
1978	151	150	152	152	151	151	150	151	152	151	151	151
1979	150	150	150	153	152	150	151	152	151	151	151	151
1980	150	150	151	151	151	150	151	151	151	151	150	150
1981	150	150	150	152	151	151	151	151	151	150	150	151
1982	150	151	151	153	151	152	150	150	150	151	151	150
1983	150	152	151	153	152	151	150	150	150	150	151	150
1984	150	151	151	151	150	150	150	150	151	151	151	151
1985	151	153	151	151	150	150	150	151	151	151	151	151
1986	151	153	152	151	151	150	150	151	151	151	151	151
1987	151	150	150	151	150	150	151	151	151	151	151	151
1988	151	151	151	151	150	151	151	151	152	153	154	152
1989	151	150	150	151	151	150	151	151	152	151	151	150
1990	150	150	150	151	151	151	151	152	152	152	151	151
1991	150	150	150	152	151	152	151	152	151	151	151	151
Avg	150	151	151	152	151	151	151	151	151	151	151	151

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	157	156	155	154	153	153	158	173	172	191	284	426
1977	331	486	616	450	166	170	176	179	175	232	352	480
1978	336	376	303	162	157	157	156	162	173	170	170	304
1979	342	361	352	167	164	157	157	165	165	163	176	300
1980	317	213	164	155	157	154	159	162	167	159	168	275
1981	239	297	213	164	159	157	158	160	166	168	201	347
1982	347	159	153	163	154	163	153	154	155	159	174	162
1983	153	158	155	161	157	154	152	152	152	156	158	154
1984	154	153	154	154	154	153	154	155	156	158	168	262
1985	257	161	163	168	157	156	155	155	164	169	210	361
1986	367	382	220	166	153	152	155	158	171	167	173	259
1987	294	334	351	189	155	153	156	159	171	175	215	348
1988	403	415	215	160	157	159	165	177	176	214	341	471
1989	330	421	651	470	178	155	155	163	175	176	205	313
1990	297	327	314	174	169	164	163	193	179	209	317	462
1991	313	379	511	427	181	165	163	173	172	205	274	408
Avg	290	299	293	218	161	158	158	165	168	179	224	333

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 2B

Sacramento River @ Emmaton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	308	271	337	213	169	178	379	879	747	1104	2437	3548
1977	2910	3478	4379	3723	734	769	1032	985	707	1311	2618	3633
1978	2648	2494	2249	222	158	159	163	179	207	267	660	2309
1979	3233	3285	3125	362	166	159	165	197	211	314	974	2502
1980	2721	1681	539	163	159	157	168	182	200	257	761	2136
1981	2294	2675	2003	425	170	160	167	220	529	791	1577	3035
1982	3040	378	155	166	156	165	154	155	160	221	718	540
1983	171	159	158	166	158	154	153	153	153	158	222	165
1984	160	156	156	157	157	154	158	173	199	256	642	1974
1985	2575	271	187	403	229	162	184	224	478	752	1615	3029
1986	3066	2692	1463	343	155	152	159	173	212	277	623	1852
1987	2744	3066	3103	1299	225	156	200	230	509	805	1626	2995
1988	3615	3567	1967	363	211	400	629	932	738	1215	2599	3607
1989	2930	3438	4733	3911	867	166	158	217	504	758	1551	2707
1990	3035	3174	2989	946	373	333	356	947	790	1251	2564	3604
1991	2858	3294	4229	3630	865	185	182	525	760	1347	2420	3468
Avg	2394	2130	1986	1031	310	226	275	398	444	693	1475	2569

Sacramento River @ Collinsville

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1304	1196	1539	797	390	485	1633	3590	2938	3818	6329	7895
1977	7454	8019	9417	8676	3022	2992	4049	3843	2752	3824	6243	7854
1978	6163	5726	5548	447	164	165	176	194	319	822	2691	5708
1979	8156	8132	7795	1262	176	165	183	347	481	1273	3507	6223
1980	6457	4904	2121	209	163	164	179	209	318	864	2757	5394
1981	6763	7124	6585	1965	265	167	247	690	1993	3263	5026	7174
1982	7045	1229	161	171	163	173	159	159	170	590	2322	1935
1983	311	162	167	181	160	154	154	157	158	162	622	252
1984	168	165	160	165	164	159	177	262	500	988	2407	5188
1985	7514	919	458	1803	847	249	506	867	1853	3127	5036	7124
1986	7047	6116	4390	1218	164	154	164	193	369	896	2358	4914
1987	7418	7859	7775	4752	766	173	615	778	1896	3276	5080	7157
1988	8695	8527	6663	1517	675	1775	2685	3699	2856	3783	6273	7829
1989	7567	8221	9969	8989	3210	252	175	674	1896	3107	4990	6612
1990	8098	8206	7867	4085	1544	1466	1599	3342	2975	3821	6242	7826
1991	7521	8142	9521	8654	3233	335	356	2044	2820	4067	6224	7785
Avg	6105	5290	5009	2806	944	564	816	1316	1518	2355	4257	6054

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

Port Chicago

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	11933	11970	12578	10429	8520	9072	12582	15669	15474	17385	19590	20656
1977	19575	19908	20639	20035	14346	15033	16096	16093	15320	17192	19488	20620
1978	18921	19046	18337	2696	1214	662	1382	3512	7118	11134	15816	19028
1979	20273	19864	19560	9449	2507	2272	4294	7201	9153	12884	16894	19500
1980	19549	18104	14085	692	165	722	3419	5146	7796	11498	15756	18775
1981	19246	19260	18646	12501	6026	3836	6196	9500	13962	16619	18696	20208
1982	19883	9446	636	449	166	230	165	955	3735	8854	14659	14094
1983	7110	2432	229	186	172	159	154	552	259	2554	8274	5506
1984	3980	352	169	325	1530	2056	4601	7118	9700	12070	15295	18680
1985	19835	7000	8030	12386	9961	7014	8930	10610	13919	16478	18615	20164
1986	19898	19130	17346	11482	398	158	2711	4949	8183	11709	15250	18395
1987	19751	19724	19540	16812	9201	4857	8899	9968	13992	16534	18690	20173
1988	20583	20031	18395	11016	10003	12942	14482	15928	15292	17197	19549	20574
1989	19638	19952	20817	20093	14455	4272	4612	9059	13549	16412	18652	19684
1990	20216	19859	19596	16039	12250	12532	12695	15460	15415	17279	19494	20618
1991	19611	19964	20659	19984	14508	6250	7636	12795	15183	17542	19632	20604
Avg	17500	15378	14329	10286	6589	5129	6803	9032	11128	13959	17147	18580

Martinez

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	18099	18126	18446	16746	14872	15292	18275	21117	21674	23630	25374	26184
1977	24525	24957	25447	24796	19763	20753	21342	21557	21583	23552	25337	26162
1978	24553	25003	24217	6492	3674	2808	3793	7660	12908	17778	22147	24940
1979	25284	24758	24486	15069	6491	5591	8750	12626	15804	19597	23103	25323
1980	25249	24162	20642	3126	684	2479	7366	10438	14281	18123	22103	24689
1981	24384	24339	23666	18244	11934	8737	11482	15155	20217	22869	24749	25866
1982	25483	15856	3303	2001	1469	1615	799	2839	7973	14412	20872	20722
1983	13682	6499	1979	924	305	145	1685	3943	2303	5843	13280	11513
1984	9224	2516	454	1721	4491	5383	9404	13154	16464	18999	21823	24660
1985	24894	12276	13612	17823	16083	13297	14870	16467	20302	22762	24671	25820
1986	25513	24863	23316	18395	885	332	6217	10035	14389	18465	21758	24421
1987	24868	24674	24487	21969	15337	10458	14243	15788	20337	22765	24717	25839
1988	25513	24872	23216	16815	16227	18624	20048	21405	21643	23579	25399	26124
1989	24554	24975	25493	24780	19743	9236	9542	14296	19715	22723	24715	25373
1990	25249	24735	24521	21265	18296	18470	18487	21014	21592	23642	25350	26154
1991	24554	25008	25451	24751	19782	12038	13360	18198	21308	23788	25486	26098
Avg	22852	20476	18921	14682	10627	9079	11229	14106	17031	20158	23180	24368

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 2B

North Bay Aqueduct

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	204	189	180	173	173	174	177	187	202	218	228	226
1977	219	200	197	200	198	194	196	201	218	248	266	252
1978	227	201	194	210	276	283	325	273	247	246	230	204
1979	194	185	179	211	278	323	276	241	239	228	206	190
1980	182	176	184	227	324	422	300	266	231	207	191	183
1981	183	182	182	203	244	225	236	226	204	192	183	180
1982	181	190	205	292	437	357	510	382	244	197	190	189
1983	185	210	255	311	507	596	552	334	222	190	191	193
1984	190	200	260	446	291	232	223	192	188	194	202	211
1985	213	253	287	261	238	206	220	210	196	201	208	214
1986	219	219	226	238	251	306	272	224	208	218	226	230
1987	225	212	194	187	185	187	194	200	218	221	232	229
1988	216	200	191	191	213	213	215	212	228	254	262	248
1989	223	200	186	192	206	211	222	220	235	244	227	199
1990	185	177	175	180	204	236	257	253	256	250	224	208
1991	199	193	187	190	211	227	272	308	271	235	218	205
Avg	203	199	205	232	265	275	278	246	225	221	218	210

Terminous

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	158	157	154	157	154	155	165	185	188	181	172	171
1977	167	158	156	157	157	170	186	204	250	281	236	177
1978	165	160	155	169	163	173	164	172	192	187	166	158
1979	156	153	153	164	175	163	168	184	188	174	159	157
1980	154	153	155	171	172	157	170	169	169	162	156	153
1981	155	155	155	162	167	169	173	178	174	162	157	156
1982	156	156	165	187	161	182	145	147	155	160	157	153
1983	154	167	163	203	182	169	149	143	149	162	157	154
1984	161	156	178	161	154	150	152	156	162	165	163	164
1985	160	169	172	164	156	157	157	164	175	170	167	165
1986	166	163	160	164	155	151	152	157	170	178	171	164
1987	164	158	154	157	158	159	166	183	190	178	173	168
1988	164	160	156	161	158	161	173	186	205	229	226	177
1989	165	156	154	159	182	163	169	186	196	180	164	156
1990	155	155	157	159	169	166	183	195	200	202	183	163
1991	158	159	160	174	187	175	181	191	199	190	163	159
Avg	160	158	159	167	166	164	166	175	185	185	173	162

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

SJR @ Vernalis

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	599	628	728	736	748	696	644	639	863	1140	1178	1022
1977	753	645	750	856	928	881	721	618	861	1047	1058	1061
1978	975	909	867	685	436	308	239	233	288	454	640	653
1979	533	565	677	569	395	330	344	363	451	625	704	697
1980	635	677	716	453	222	211	290	336	325	411	596	658
1981	529	572	721	690	640	627	589	588	652	842	1004	929
1982	765	747	745	516	290	234	191	178	240	385	477	415
1983	230	295	242	182	152	131	154	181	155	177	317	367
1984	321	273	205	200	264	332	400	439	506	636	700	683
1985	679	720	719	714	686	642	591	552	640	845	988	909
1986	746	754	814	735	424	166	216	282	298	518	713	705
1987	610	649	761	752	751	693	623	622	861	1077	1065	949
1988	770	786	905	925	937	898	732	620	869	1106	1121	1076
1989	985	945	922	924	941	868	664	514	802	998	989	970
1990	901	922	944	944	930	886	677	482	674	993	1150	1034
1991	930	940	956	968	990	829	577	507	778	1069	1138	1044
Avg	691	689	730	678	608	546	478	447	579	770	865	823

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	606	615	733	729	752	701	649	640	725	970	1184	1045
1977	765	641	739	828	872	888	736	621	803	1065	1055	1067
1978	981	912	871	700	441	311	240	234	291	454	637	659
1979	537	557	675	579	399	331	344	365	454	623	706	698
1980	639	666	729	460	224	211	289	339	328	409	585	661
1981	533	560	717	707	644	632	595	590	653	634	942	939
1982	773	741	765	526	293	236	192	178	240	381	480	418
1983	331	297	244	186	153	133	153	182	156	177	314	369
1984	322	275	206	200	263	331	399	441	503	630	703	688
1985	679	720	734	717	694	643	597	552	630	659	959	925
1986	755	745	834	757	431	167	215	282	300	498	720	709
1987	616	635	766	750	753	701	628	623	722	682	1036	968
1988	780	772	856	790	909	907	747	624	808	1103	1121	1086
1989	989	947	924	907	938	927	685	522	722	797	947	980
1990	900	920	939	911	925	899	698	487	640	923	1134	1048
1991	929	938	952	966	986	866	587	512	709	1022	1118	1055
Avg	696	684	730	670	605	555	485	450	543	689	853	832

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 2B

SJR @ Rindge Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	530	422	194	185	188	180	429	606	288	229	227	253
1977	741	597	349	208	180	294	594	639	460	347	430	498
1978	837	869	272	245	432	341	254	243	310	263	198	244
1979	523	456	216	269	410	343	350	375	312	211	186	201
1980	570	443	191	475	246	216	288	354	344	241	179	234
1981	517	435	199	188	218	240	481	583	290	199	198	205
1982	606	367	192	517	324	277	201	181	241	249	222	365
1983	830	314	263	210	166	144	156	185	160	180	190	357
1984	327	293	226	208	265	311	377	443	253	188	188	214
1985	520	461	213	185	178	198	463	535	266	206	211	225
1986	621	605	228	189	443	177	211	287	313	231	205	219
1987	583	480	212	178	189	195	435	611	303	224	227	227
1988	659	680	246	184	180	192	510	622	349	297	379	462
1989	823	746	273	205	409	229	418	541	294	229	214	204
1990	465	699	327	196	197	207	527	521	343	277	319	340
1991	696	808	454	363	456	253	536	525	374	277	239	285
Avg	584	542	253	250	280	237	389	453	306	241	238	283

SJR @ Prisoners Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	168	157	155	157	155	155	174	216	220	213	265	353
1977	309	258	338	294	200	181	226	301	287	301	383	444
1978	403	363	249	174	175	230	248	235	214	180	183	222
1979	241	216	217	181	187	197	238	308	190	174	191	235
1980	242	216	195	260	244	207	228	280	212	164	166	194
1981	212	193	221	188	164	163	188	240	191	215	255	290
1982	278	200	160	202	256	262	210	177	177	163	161	161
1983	162	179	249	246	192	165	159	185	166	169	158	176
1984	251	272	241	211	212	180	194	250	170	164	169	199
1985	242	190	166	164	158	157	181	199	180	211	252	293
1986	294	253	227	178	362	185	187	242	218	173	172	196
1987	226	224	219	198	162	157	175	268	202	223	264	297
1988	319	362	287	194	161	162	190	238	240	256	356	437
1989	400	291	341	308	263	169	171	215	200	223	263	275
1990	265	283	302	251	180	167	198	270	250	249	333	415
1991	353	332	425	434	317	176	202	246	234	250	279	361
Avg	273	249	250	228	212	182	198	242	209	208	241	284

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 2B

SJR @ San Andreas Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	178	160	160	160	157	157	168	225	281	278	436	657
1977	478	464	742	608	287	206	262	288	320	371	580	789
1978	650	549	420	187	159	167	180	186	184	184	220	357
1979	416	404	404	223	167	158	171	202	193	189	246	390
1980	411	347	259	170	177	165	174	187	171	167	188	294
1981	319	315	365	240	166	160	168	185	212	293	396	520
1982	497	272	163	171	165	182	165	156	157	162	176	174
1983	155	158	177	204	175	158	151	157	158	157	160	155
1984	170	179	185	171	162	153	158	171	171	172	189	290
1985	396	235	173	177	164	157	161	171	197	280	384	521
1986	522	463	360	211	196	159	159	176	172	175	190	280
1987	355	407	404	294	171	156	164	191	221	300	407	523
1988	583	671	486	253	169	168	191	239	295	327	552	773
1989	653	539	772	651	398	176	163	182	223	298	405	479
1990	459	535	560	386	208	174	183	233	312	323	529	747
1991	595	585	849	837	461	184	175	203	270	328	452	669
Avg	427	393	405	309	211	168	175	197	221	250	344	476

SJR @ Jersey Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	309	191	198	174	163	163	200	399	587	763	1261	1704
1977	1245	1219	1777	1618	619	321	463	467	553	640	1149	1702
1978	1320	1070	1047	274	171	180	193	200	210	223	572	999
1979	1267	1248	1192	399	181	170	181	217	218	324	696	1141
1980	1189	917	608	201	192	176	185	207	200	203	394	814
1981	942	936	1044	523	188	168	175	203	342	940	1308	1524
1982	1422	581	173	189	184	199	180	162	166	177	284	288
1983	168	166	189	229	191	168	156	164	164	162	184	167
1984	178	196	199	184	175	164	166	186	190	248	372	777
1985	1183	454	196	260	204	163	168	192	312	876	1229	1495
1986	1429	1155	875	374	219	171	167	188	198	211	353	719
1987	1052	1166	1183	712	220	163	172	207	350	942	1306	1548
1988	1534	1471	1350	574	196	212	276	410	558	638	1132	1682
1989	1356	1329	1963	1760	658	204	166	196	355	914	1334	1394
1990	1340	1339	1296	1065	342	212	219	356	592	635	1111	1657
1991	1326	1304	1835	1691	715	219	184	262	491	650	1162	1638
Avg	1079	921	945	639	289	191	203	251	343	534	865	1203

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	967	752	918	507	284	331	957	2267	2228	2834	4538	5607
1977	4711	4916	6093	5674	2194	1787	2555	2398	2052	2547	4228	5475
1978	4188	3747	3658	479	173	179	190	200	266	571	2057	3848
1979	5251	5130	4914	1033	184	171	183	275	379	983	2607	4301
1980	4340	3463	1785	244	193	176	184	211	258	588	1858	3506
1981	4327	4386	4543	1646	252	171	213	450	1395	2726	3982	5136
1982	4851	1254	181	192	186	199	182	163	171	386	1404	1236
1983	257	167	190	234	197	172	158	165	166	163	439	219
1984	175	194	201	184	175	164	172	224	372	742	1634	3416
1985	5049	1015	363	1180	591	208	335	563	1294	2588	3908	5069
1986	4841	4030	3139	1013	226	175	167	191	276	595	1593	3185
1987	4702	4994	4883	3154	560	172	401	498	1344	2726	3998	5154
1988	5726	5508	4940	1446	462	1057	1583	2298	2114	2584	4249	5448
1989	4919	5264	6613	5936	2234	265	174	448	1352	2601	3983	4719
1990	5410	5397	5180	3363	1092	889	964	1923	2220	2591	4226	5439
1991	4902	5284	6352	5765	2300	817	272	1201	2022	2743	4377	5473
Avg	4039	3469	3372	2003	706	402	543	842	1119	1748	3068	4202

Old River @ Middle River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	374	397	730	733	750	698	498	441	741	958	967	903
1977	546	575	744	848	923	887	598	488	732	929	864	934
1978	608	652	865	693	440	311	240	235	293	456	639	658
1979	427	403	667	576	399	331	348	429	459	624	665	666
1980	391	410	714	459	224	211	291	339	329	411	572	661
1981	392	394	718	695	643	630	508	480	638	701	824	849
1982	424	434	741	525	293	237	193	179	241	383	480	418
1983	331	297	244	187	153	133	154	182	156	178	316	369
1984	339	276	206	201	264	332	353	406	506	633	669	688
1985	377	512	720	714	690	643	487	425	614	731	823	861
1986	468	538	816	740	430	167	215	283	301	497	686	673
1987	427	455	753	752	752	697	494	454	739	870	897	857
1988	477	546	895	915	934	903	597	482	724	709	854	947
1989	595	630	920	921	940	877	568	473	668	896	821	860
1990	395	450	928	942	930	892	603	497	616	669	774	921
1991	528	566	948	967	988	844	532	487	643	734	831	877
Avg	444	471	726	679	610	550	417	393	525	649	730	759

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	458	387	717	730	752	701	603	478	712	787	896	917
1977	681	602	730	838	915	892	721	543	680	922	906	903
1978	759	663	852	705	454	322	324	413	306	463	619	661
1979	497	449	659	590	410	336	371	498	472	610	666	665
1980	489	431	706	474	245	215	332	451	339	413	561	643
1981	466	405	702	710	654	639	608	536	621	707	733	837
1982	567	512	737	558	302	253	195	347	244	384	484	422
1983	351	317	252	252	174	167	155	184	158	180	317	373
1984	345	282	223	207	268	335	397	414	498	612	673	667
1985	491	522	722	721	698	645	574	439	590	728	777	837
1986	604	555	806	751	445	171	226	365	308	491	692	679
1987	526	496	739	751	752	702	594	483	720	913	875	873
1988	632	549	865	908	929	906	717	538	686	684	744	888
1989	751	655	899	912	934	883	670	532	670	904	774	851
1990	547	438	884	940	930	900	739	568	651	607	631	905
1991	697	601	913	963	984	860	636	570	624	605	672	833
Avg	554	492	713	688	615	558	491	460	517	626	689	747

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	263	217	196	200	201	193	244	332	308	280	358	494
1977	548	448	522	474	292	351	344	416	452	505	486	616
1978	641	574	413	261	256	288	307	284	306	248	226	309
1979	408	370	340	272	255	260	289	345	289	216	235	322
1980	408	338	256	326	332	257	273	360	306	216	199	266
1981	355	311	313	249	222	222	274	369	290	271	340	405
1982	464	310	190	324	330	345	206	219	211	210	206	220
1983	214	233	318	252	181	166	165	191	167	182	186	229
1984	273	294	232	214	273	243	254	325	250	195	206	267
1985	376	301	204	196	194	198	251	315	257	265	339	417
1986	489	432	338	228	422	296	243	293	289	229	216	270
1987	381	371	341	279	216	201	244	369	311	290	363	425
1988	516	545	433	256	200	211	277	369	353	351	434	603
1989	633	510	525	498	642	237	233	334	292	293	354	395
1990	420	452	464	348	242	222	292	394	362	335	388	552
1991	572	513	609	634	587	267	296	368	356	336	366	487
Avg	435	389	356	313	303	247	262	330	300	276	306	392

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

Old River @ Rock Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	220	179	169	168	166	164	191	282	282	284	390	546
1977	543	441	579	533	302	210	274	372	383	394	485	651
1978	653	546	416	220	210	248	305	319	258	213	222	319
1979	416	383	364	247	217	224	253	315	239	201	243	345
1980	415	335	261	287	278	236	242	312	263	187	190	266
1981	346	307	337	251	185	180	217	306	246	295	389	457
1982	483	290	172	252	280	294	238	209	193	183	183	194
1983	188	204	316	310	199	178	185	208	181	173	172	202
1984	250	312	271	245	238	205	217	286	209	179	195	263
1985	382	265	183	181	173	167	200	262	220	283	379	458
1986	504	429	350	223	380	295	226	263	255	202	199	261
1987	371	375	365	293	188	169	195	317	262	308	404	472
1988	543	575	469	268	179	176	214	316	311	327	443	640
1989	648	492	592	570	437	203	194	277	249	307	401	438
1990	433	459	479	383	228	187	227	340	329	318	413	606
1991	590	507	662	692	515	221	232	313	306	316	392	539
Avg	437	381	374	320	261	210	226	294	262	261	319	416

Old River @ Holland Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	206	170	165	164	162	161	185	270	279	292	419	592
1977	552	451	619	574	313	205	269	360	363	376	504	687
1978	666	548	431	215	193	231	267	267	240	203	227	341
1979	436	406	392	248	202	208	240	296	223	198	253	372
1980	436	350	270	263	257	216	228	290	244	180	192	283
1981	351	319	359	257	179	173	206	286	234	312	417	499
1982	515	298	169	225	260	266	247	188	183	176	181	190
1983	176	190	270	321	216	188	180	202	186	169	168	190
1984	234	288	280	242	220	193	207	267	197	177	196	277
1985	406	264	179	179	171	163	193	242	211	297	403	497
1986	534	445	364	224	375	240	197	241	239	193	198	273
1987	381	395	392	307	184	165	187	293	248	322	429	511
1988	574	599	495	276	176	172	209	302	303	326	467	675
1989	662	506	644	617	422	195	185	256	238	320	429	474
1990	465	481	501	404	227	182	217	324	321	319	440	644
1991	606	523	702	726	498	210	220	294	295	318	418	582
Avg	450	390	390	328	253	198	215	274	250	261	334	443

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	340	300	263	348	439	267	269	415	325	251	273	368
1977	526	458	424	378	251	261	359	473	498	512	462	547
1978	583	606	413	590	482	364	324	286	342	510	231	625
1979	392	333	301	543	443	364	331	387	528	237	213	266
1980	379	337	287	489	265	227	285	379	367	432	218	261
1981	369	316	271	397	586	618	358	451	338	217	235	280
1982	405	341	294	615	332	315	204	192	253	396	497	431
1983	274	329	264	271	178	162	160	189	165	186	331	383
1984	319	293	230	233	290	343	298	394	300	204	216	266
1985	352	362	287	411	486	502	306	406	301	219	246	310
1986	429	423	335	404	453	187	234	302	328	257	231	276
1987	396	355	288	285	484	485	298	431	356	240	266	302
1988	445	492	350	274	263	237	303	455	390	343	405	531
1989	573	533	406	356	555	379	296	427	334	247	253	282
1990	375	436	423	301	288	277	337	466	384	323	353	456
1991	503	524	524	548	571	660	370	449	402	334	302	383
Avg	416	402	335	403	398	353	296	381	351	307	296	373

Middle River @ Santa Fe Rail Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	345	291	230	217	225	215	280	413	305	239	268	371
1977	529	446	389	294	215	225	370	481	468	424	447	544
1978	584	603	345	288	324	328	327	323	303	272	218	283
1979	382	326	261	279	319	303	322	378	313	219	209	266
1980	381	328	230	397	314	254	276	359	330	243	204	262
1981	372	308	241	220	257	276	341	450	316	213	231	282
1982	405	334	217	397	350	368	232	200	225	235	236	261
1983	260	271	342	297	199	181	176	202	178	181	199	279
1984	315	332	271	258	275	266	295	394	283	198	211	264
1985	352	352	231	203	219	231	307	402	283	214	240	310
1986	427	412	277	215	447	269	223	278	306	241	223	272
1987	396	345	258	214	226	232	295	439	332	234	259	300
1988	449	487	315	205	193	214	320	453	366	320	400	530
1989	573	517	365	289	333	251	301	419	311	240	248	283
1990	376	441	387	247	219	234	348	460	359	305	350	456
1991	503	523	493	455	463	310	366	442	377	316	295	391
Avg	416	395	303	280	286	260	299	381	316	256	265	335

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	202	174	159	160	159	158	211	285	227	214	251	319
1977	395	319	309	273	199	183	266	404	315	308	364	410
1978	444	448	254	183	220	277	259	247	269	196	183	211
1979	280	229	207	186	234	245	291	361	215	178	187	220
1980	267	218	192	336	252	216	260	330	268	174	166	187
1981	257	209	211	188	173	175	243	351	209	210	243	267
1982	283	204	164	263	291	277	216	180	204	175	165	179
1983	195	218	261	276	212	179	161	188	169	177	164	222
1984	298	291	250	222	237	215	250	345	189	167	171	193
1985	244	204	171	167	161	162	235	284	193	207	242	271
1986	304	276	223	180	386	185	199	270	267	187	177	193
1987	269	235	210	194	166	163	217	381	223	220	255	278
1988	338	389	280	194	165	165	236	327	253	261	331	402
1989	434	321	302	284	260	180	208	307	215	221	251	257
1990	253	293	284	243	185	173	259	373	264	250	302	373
1991	968	369	388	388	326	191	269	348	253	247	263	319
Avg	302	275	242	234	227	197	236	311	233	212	232	269

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	454	377	720	731	751	700	575	475	696	871	911	918
1977	663	593	736	843	920	891	689	531	679	912	869	904
1978	736	658	858	699	444	315	243	238	294	451	614	659
1979	492	435	661	581	402	333	357	485	459	604	668	664
1980	478	427	707	464	229	213	305	349	331	408	560	639
1981	461	410	708	700	647	633	572	529	618	688	810	848
1982	549	471	735	534	296	244	193	180	240	378	480	421
1983	334	298	245	199	157	140	154	182	157	178	312	371
1984	346	278	207	203	266	333	382	413	494	611	672	661
1985	477	455	716	717	693	643	549	441	588	706	822	845
1986	586	525	809	744	434	169	216	286	302	480	687	675
1987	518	485	747	751	752	699	569	481	709	880	901	877
1988	610	545	882	914	932	905	677	528	684	693	745	900
1989	729	645	908	918	937	881	636	526	660	879	813	863
1990	529	439	901	942	930	896	688	554	628	614	644	910
1991	672	577	925	966	986	853	593	557	615	625	733	865
Avg	540	476	717	682	611	553	462	422	509	624	703	751

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 2B

Grant Line Canal @ West End

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	450	291	705	727	752	702	575	447	665	875	923	924
1977	664	510	718	832	912	895	687	521	671	899	876	909
1978	741	620	842	705	449	317	243	238	295	448	607	662
1979	486	389	648	586	405	335	351	452	469	598	663	657
1980	478	373	696	468	231	213	297	350	333	405	548	638
1981	455	347	693	704	650	636	566	501	614	676	815	848
1982	551	393	723	541	298	245	194	180	240	372	482	425
1983	324	299	246	204	159	143	154	182	157	177	308	373
1984	339	279	208	203	267	333	376	395	490	602	667	657
1985	474	389	707	717	696	644	548	418	574	697	830	848
1986	589	473	796	748	438	170	215	286	303	462	684	670
1987	507	414	732	750	753	703	563	455	676	877	913	883
1988	613	528	855	905	923	908	681	504	676	717	740	903
1989	734	580	881	913	932	884	627	487	659	882	825	865
1990	535	437	854	936	923	899	682	543	631	627	640	895
1991	679	538	884	962	980	866	587	530	612	632	720	866
Avg	539	429	699	681	611	556	459	406	504	622	703	751

DMC Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	288	240	289	302	321	299	352	350	347	287	359	513
1977	554	457	528	493	357	460	493	422	485	566	585	621
1978	643	592	467	362	338	319	250	241	310	290	257	356
1979	403	362	374	346	320	302	318	364	340	248	265	349
1980	403	340	309	405	274	228	276	352	336	254	235	318
1981	363	313	346	310	323	326	370	390	356	273	332	420
1982	456	323	264	412	327	292	203	181	230	248	258	271
1983	263	269	267	234	179	160	155	187	163	183	208	286
1984	289	291	225	206	268	285	303	340	308	227	253	318
1985	373	320	278	267	293	297	353	342	314	270	335	439
1986	482	436	389	300	440	190	213	287	310	264	264	327
1987	388	370	384	335	319	307	343	324	362	300	360	441
1988	502	530	455	310	310	340	418	391	385	362	423	597
1989	633	529	540	513	603	330	326	364	328	303	347	419
1990	416	444	508	387	333	334	422	420	393	346	373	566
1991	574	516	622	669	680	391	404	400	398	357	359	480
Avg	439	396	390	366	355	304	325	335	335	299	326	420

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

Clifton Court Forebay

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	288	240	289	302	321	299	352	350	347	287	359	513
1977	554	457	528	493	357	460	493	422	485	566	585	621
1978	643	592	467	362	338	319	250	241	310	290	257	356
1979	403	362	374	346	320	302	318	364	340	248	265	349
1980	403	340	309	405	274	228	276	352	336	254	235	318
1981	363	313	346	310	323	326	370	390	356	273	332	420
1982	456	323	264	412	327	292	203	181	230	248	258	271
1983	263	269	267	234	179	160	155	187	163	183	208	286
1984	289	291	225	206	268	285	303	340	308	227	253	318
1985	373	320	278	267	293	297	353	342	314	270	335	439
1986	482	436	389	300	440	190	213	287	310	264	264	327
1987	388	370	384	335	319	307	343	324	362	300	360	441
1988	502	530	455	310	310	340	418	391	385	362	423	597
1989	633	529	540	513	603	330	326	364	328	303	347	419
1990	416	444	508	387	333	334	422	420	393	346	373	566
1991	574	516	622	669	680	391	404	400	398	357	359	480
Avg	439	396	390	366	355	304	325	335	335	299	326	420

Contra Costa Canal Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	246	199	185	195	200	194	267	331	327	345	441	566
1977	571	456	565	564	341	243	316	400	446	477	526	662
1978	670	559	453	372	314	365	352	396	335	253	242	330
1979	425	396	376	331	269	245	329	382	285	241	264	360
1980	429	352	291	333	542	320	380	380	301	221	210	281
1981	362	319	352	311	239	237	329	361	278	312	403	471
1982	500	319	202	614	363	514	415	271	214	212	205	212
1983	201	282	475	860	535	488	352	256	224	202	197	222
1984	270	375	451	334	297	243	277	316	236	211	222	287
1985	401	348	228	219	208	194	255	299	248	306	401	485
1986	536	455	402	275	509	427	367	326	287	244	240	293
1987	396	391	379	332	231	222	275	413	298	341	443	504
1988	566	576	505	316	208	210	284	355	364	420	485	659
1989	664	506	588	601	496	259	244	337	293	332	413	450
1990	446	464	489	417	270	218	342	373	389	364	430	606
1991	610	511	649	697	568	276	286	360	357	346	408	544
Avg	456	407	412	423	349	291	317	347	305	302	346	433

Department of Water Resources, Delta Modeling Section

Table 3-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 2B

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	614	578	378	373	396	359	592	646	364	249	313	534
1977	797	636	561	308	217	549	776	642	612	466	722	922
1978	986	921	438	539	489	346	255	247	312	369	255	523
1979	550	532	373	539	443	353	356	377	435	254	241	420
1980	644	628	298	486	253	218	294	356	347	368	270	514
1981	546	525	296	268	468	505	620	597	392	206	209	352
1982	772	681	303	599	327	288	204	183	244	345	413	433
1983	345	323	264	229	180	185	158	187	172	181	255	379
1984	328	295	232	213	270	333	396	445	388	225	282	472
1985	673	715	321	256	352	413	585	555	360	213	232	436
1986	769	731	352	260	457	182	214	290	314	282	291	490
1987	634	598	347	241	376	387	594	628	387	236	251	365
1988	786	740	330	200	249	359	714	641	490	368	698	902
1989	987	944	510	273	654	338	597	552	381	245	232	366
1990	818	897	594	226	264	381	714	519	427	362	580	696
1991	902	928	740	634	766	494	689	530	502	407	354	682
Avg	697	667	396	353	385	356	485	462	383	299	350	530

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	275	204	165	163	163	161	221	320	238	216	242	303
1977	457	371	310	258	195	185	277	429	338	318	364	406
1978	458	483	260	190	259	292	267	254	276	213	185	205
1979	342	260	205	190	271	269	303	369	233	185	185	210
1980	314	233	189	362	259	221	265	338	291	186	168	184
1981	333	240	205	188	180	186	266	385	227	206	230	248
1982	305	213	169	309	301	285	232	183	215	185	171	208
1983	227	243	272	310	222	190	167	192	175	178	170	246
1984	309	306	275	241	244	231	268	374	204	171	174	192
1985	264	232	180	171	164	167	253	334	208	205	232	257
1986	330	309	222	181	412	199	201	270	283	200	183	194
1987	338	261	206	189	170	170	231	403	242	219	246	262
1988	364	404	271	191	168	168	247	366	267	265	327	396
1989	446	364	290	265	260	191	233	353	231	222	241	242
1990	249	316	287	231	189	179	277	406	279	254	296	363
1991	382	400	387	381	339	206	292	384	271	251	257	303
Avg	337	302	243	239	237	206	250	335	249	217	229	264

Department of Water Resources, Delta Modeling Section

Figure 3-4
Distance Reference for X2 Tables
(values shown in kilometers from Golden Gate)

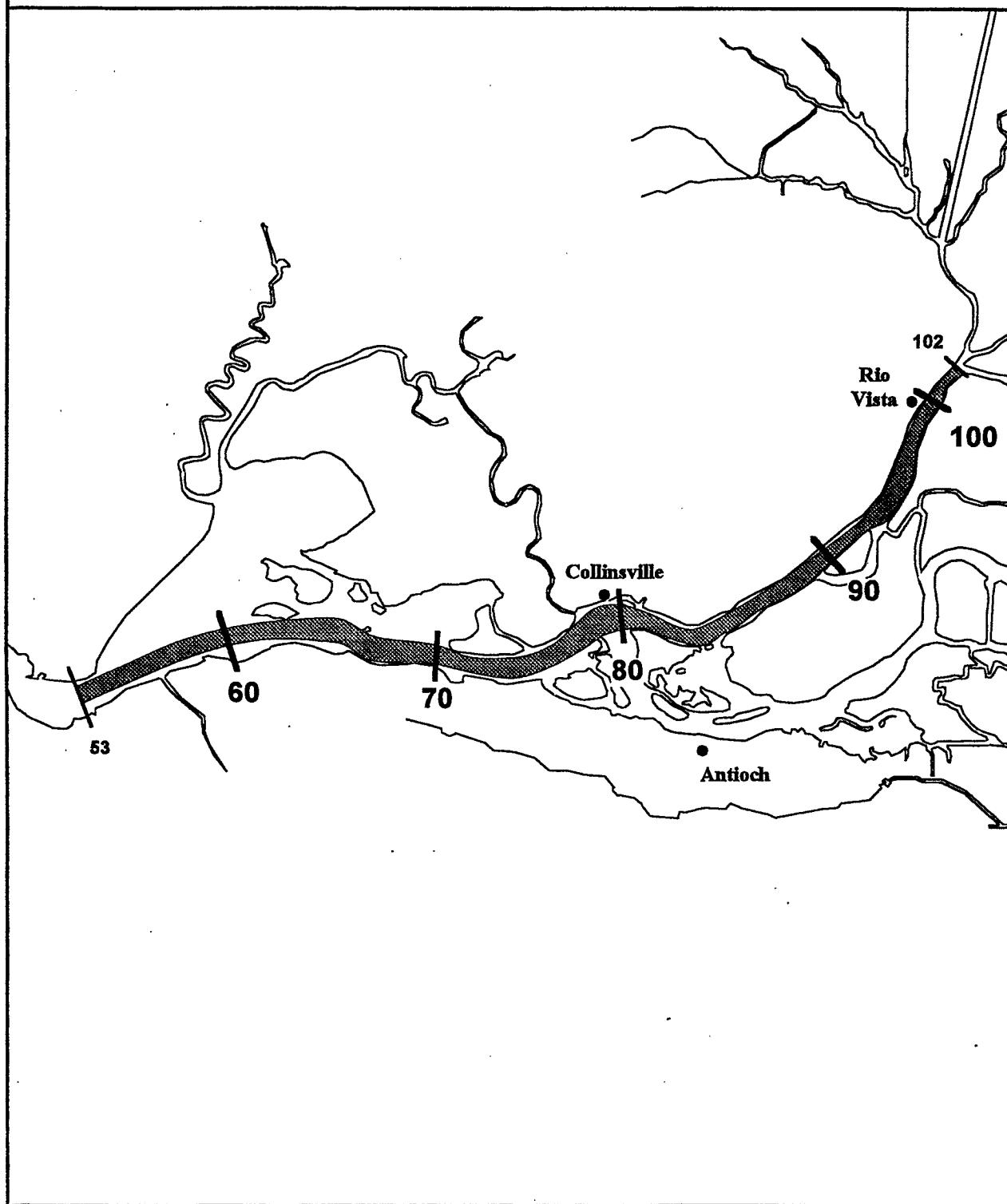


Table 3-5
Monthly Average Location of 2640 micro Siemens/cm, EC

(Values in km from Golden Gate)
(Benicia Assumed to be at 53.1 km from Golden gate)
(Hydrology from DWRSIM Study 532)

Alternative 2B

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	73.8	73.6	74.9	71.7	67.4	69.1	75.2	82.0	80.5	82.8	87.6	90.4
1977	88.9	90.2	92.0	90.6	79.2	80.1	83.3	82.9	79.7	83.0	88.1	90.7
1978	88.1	87.7	87.1	61.3	58.6	56.9	59.0	61.9	65.4	71.7	79.3	87.2
1979	89.6	89.6	89.3	69.9	60.9	60.8	62.2	65.8	68.6	73.7	81.8	87.8
1980	88.4	85.5	76.8	59.5	*	57.4	61.9	62.4	65.7	72.1	79.5	86.7
1981	87.3	88.3	86.8	75.9	63.6	62.0	64.1	70.6	76.5	81.7	85.2	89.2
1982	89.2	69.2	57.6	55.0	54.5	*	*	58.2	61.9	69.4	77.8	76.2
1983	64.4	60.8	56.8	*	*	*	56.3	57.7	56.1	61.1	69.3	63.3
1984	62.2	57.4	*	56.2	59.5	60.6	62.4	64.6	69.1	72.7	78.2	86.0
1985	88.0	66.8	67.8	75.8	71.0	64.3	69.0	72.2	75.9	81.3	85.3	89.2
1986	89.3	88.4	84.6	72.7	59.9	0.0	61.4	62.4	66.9	72.3	78.1	85.6
1987	88.4	89.1	89.3	84.3	69.1	62.3	69.5	71.6	76.2	81.8	85.3	89.1
1988	90.4	90.3	86.7	73.2	70.7	75.8	79.2	82.5	80.0	82.8	88.1	90.6
1989	88.9	90.0	92.6	90.9	79.6	62.8	62.3	70.0	76.0	81.2	85.1	88.4
1990	89.1	89.3	88.9	82.6	74.8	74.7	75.1	81.1	80.4	82.9	88.0	90.6
1991	88.7	89.6	91.5	90.3	79.7	64.2	66.4	76.7	80.3	83.7	87.6	87.5
Avg	84.7	81.6	**	**	**	**	**	70.2	72.5	77.1	82.8	86.2

* Values Downstream of Model Boundary - Benicia

** 16 Year Average not Reported - Contains Values Downstream of Benicia.

Department of Water Resources, Delta Modeling Section

Figure 3-5
Output Locations for Minimum Water Levels
Alternative 2B

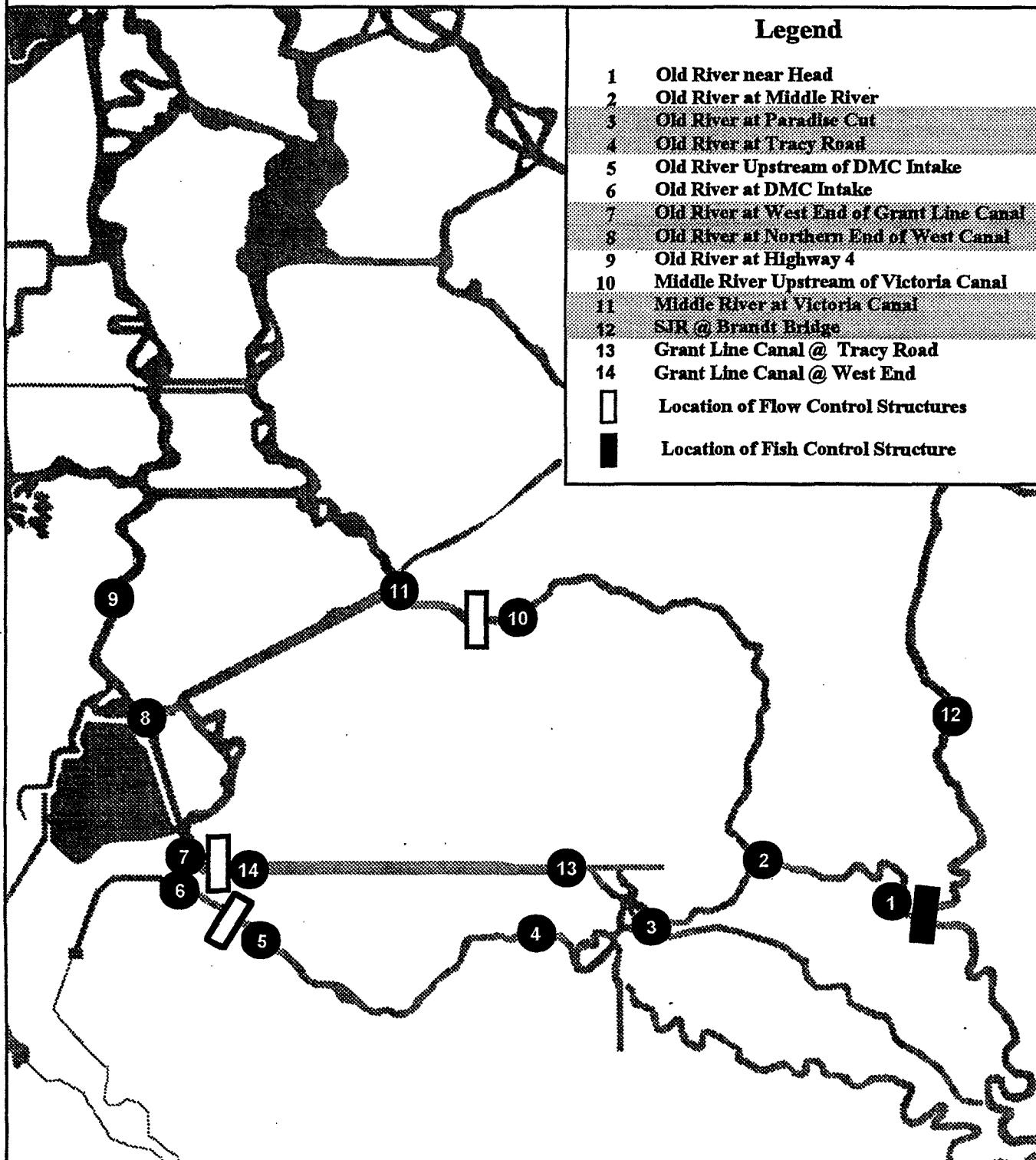


Table 3-6
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 2B

Old River near Head

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.73	-0.49	-0.55	1.11	1.21	1.44	1.48
1977	0.55	-0.52	-0.47	1.40	1.24	1.59	1.67
1978	6.41	6.41	5.22	3.66	1.72	1.39	1.77
1979	2.28	-0.39	-0.40	1.74	1.29	1.39	1.63
1980	2.59	-0.38	3.18	3.52	1.96	1.47	1.82
1981	0.99	-0.44	-0.49	1.29	0.95	1.33	1.47
1982	9.73	9.73	7.13	4.58	1.91	1.77	2.77
1983	7.63	7.63	8.06	12.30	6.29	1.86	3.59
1984	1.49	-0.43	-0.48	1.65	1.34	1.49	1.69
1985	0.99	-0.47	-0.53	1.29	0.98	1.35	1.50
1986	4.35	4.35	3.91	4.09	1.44	1.45	1.65
1987	0.78	-0.50	-0.45	1.11	0.96	1.32	1.44
1988	0.72	-0.48	-0.52	1.34	1.28	1.54	1.65
1989	0.90	-0.46	-0.52	1.28	0.97	1.31	1.48
1990	0.86	-0.49	-0.47	1.31	1.35	1.51	1.52
1991	1.08	-0.46	-0.51	1.40	1.38	1.42	1.65
Avg	2.63	1.41	1.38	2.69	1.64	1.48	1.80

Old River @ Middle River

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.38	-0.45	-0.51	1.08	1.18	1.42	1.42
1977	0.26	-0.48	-0.43	1.36	1.21	1.55	1.64
1978	4.25	4.25	3.35	2.64	1.46	1.27	1.52
1979	1.42	-0.35	-0.36	1.50	1.20	1.28	1.48
1980	1.62	-0.34	1.98	2.56	1.60	1.34	1.61
1981	0.57	-0.40	-0.45	1.23	0.91	1.29	1.38
1982	6.13	6.13	4.72	3.30	1.61	1.51	2.10
1983	4.64	4.64	4.89	7.91	4.48	1.54	2.70
1984	0.89	-0.38	-0.44	1.49	1.25	1.36	1.52
1985	0.56	-0.43	-0.48	1.23	0.94	1.32	1.40
1986	2.80	2.80	2.46	2.93	1.35	1.33	1.50
1987	0.41	-0.45	-0.42	1.08	0.92	1.29	1.35
1988	0.38	-0.44	-0.48	1.31	1.26	1.51	1.62
1989	0.51	-0.42	-0.48	1.25	0.93	1.28	1.39
1990	0.47	-0.45	-0.43	1.27	1.32	1.49	1.46
1991	0.62	-0.42	-0.47	1.36	1.36	1.39	1.62
Avg	1.62	0.80	0.78	2.09	1.44	1.39	1.61

Department of Water Resources, Delta Modeling Section

Table 3-6 (cont.)
Minimum Water Levels
 (Values in feet above mean sea level)

Alternative 2B

Old River near Paradise Cut

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.15	-0.37	-0.43	1.09	1.21	1.41	1.35
1977	0.07	-0.40	-0.35	1.37	1.20	1.55	1.62
1978	2.47	2.47	1.86	2.05	1.33	1.15	1.39
1979	0.77	-0.28	-0.27	1.34	1.10	1.17	1.35
1980	0.89	-0.27	1.08	2.00	1.41	1.23	1.43
1981	0.28	-0.33	-0.38	1.23	0.93	1.28	1.28
1982	3.24	3.24	2.73	2.53	1.47	1.38	1.70
1983	2.36	2.36	2.42	4.09	3.33	1.36	2.19
1984	0.47	-0.31	-0.36	1.36	1.14	1.24	1.37
1985	0.26	-0.35	-0.41	1.24	0.96	1.30	1.31
1986	1.58	1.58	1.34	2.25	1.26	1.22	1.37
1987	0.16	-0.38	0.33	1.09	0.94	1.27	1.26
1988	0.15	-0.37	-0.40	1.32	1.25	1.52	1.60
1989	0.24	-0.35	-0.41	1.27	0.95	1.26	1.30
1990	0.20	-0.38	-0.35	1.28	1.32	1.49	1.39
1991	0.30	-0.34	-0.39	1.37	1.35	1.41	1.59
Avg	0.85	0.35	0.33	1.68	1.32	1.33	1.47

Old River @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.26	-0.11	-0.19	0.97	1.17	1.46	1.23
1977	0.18	-0.15	-0.08	1.34	1.10	1.55	1.67
1978	2.41	2.41	1.80	1.68	1.14	0.93	1.23
1979	-0.80	-0.04	-0.02	1.12	0.89	0.99	1.18
1980	0.90	-0.03	1.06	1.64	1.17	1.05	1.24
1981	0.36	-0.09	-0.13	1.10	0.76	1.34	1.14
1982	2.41	2.41	2.67	2.07	1.29	1.20	1.40
1983	1.69	1.69	1.69	2.95	2.72	1.12	1.86
1984	0.53	-0.07	-0.14	1.15	0.94	1.07	1.20
1985	0.34	-0.11	-0.19	1.10	0.78	1.36	1.17
1986	1.54	1.54	1.31	1.84	1.11	1.04	1.21
1987	0.25	-0.15	-0.09	0.98	0.78	1.33	1.11
1988	0.25	-0.12	-0.15	1.29	1.23	1.50	1.65
1989	0.32	-0.14	-0.18	1.23	0.77	1.31	1.16
1990	0.28	-0.14	-0.08	1.25	1.30	1.49	1.26
1991	0.38	-0.10	-0.14	1.34	1.33	1.39	1.64
Avg	0.81	0.43	0.45	1.44	1.16	1.26	1.33

Table 3-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 2B

Old River Upstream of DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.44	0.10	0.03	0.94	1.10	1.32	1.04
1977	0.41	0.07	0.15	1.32	0.98	1.43	1.53
1978	2.36	2.36	1.73	1.22	0.95	0.69	1.06
1979	0.82	0.17	0.23	0.92	0.66	0.76	1.01
1980	0.93	0.18	1.03	1.21	0.89	0.85	1.04
1981	0.53	0.12	0.09	0.96	0.58	1.19	1.00
1982	1.38	1.38	2.61	1.49	1.12	1.03	0.99
1983	0.92	0.92	0.85	1.50	1.89	0.84	1.43
1984	0.66	0.15	0.09	0.95	0.71	0.87	1.02
1985	0.51	0.10	0.03	0.96	0.59	1.21	1.03
1986	1.46	1.47	1.25	1.34	1.00	0.85	1.04
1987	0.47	0.08	0.14	0.93	0.59	1.18	0.98
1988	0.43	0.09	0.07	1.27	1.23	1.40	1.50
1989	0.53	0.09	0.05	1.21	0.59	1.17	1.02
1990	0.46	0.08	0.15	1.23	1.29	1.39	1.05
1991	0.54	0.12	0.08	1.32	1.31	1.32	1.49
Avg	0.80	0.47	0.54	1.17	0.97	1.09	1.14

Old River @ DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.36	-0.49	-0.53	-0.84	-0.87	-0.85	-0.86
1977	-0.39	-0.51	-0.49	-0.81	-0.87	-0.85	-0.84
1978	0.33	0.33	0.13	-0.77	-0.86	-1.02	-0.86
1979	-0.14	-0.39	-0.40	-0.81	-1.02	-1.00	-0.87
1980	-0.11	-0.38	-0.07	-0.76	-0.96	-0.89	-0.86
1981	-0.29	-0.45	-0.48	-0.85	-1.04	-0.99	-0.87
1982	1.23	1.23	0.38	-0.75	-0.83	-0.85	-0.95
1983	0.82	0.82	0.75	1.29	-0.82	-0.98	-0.66
1984	-0.23	-0.42	-0.46	-0.81	-0.98	-0.87	-0.87
1985	-0.31	-0.46	-0.50	-0.85	-1.03	-0.98	-0.87
1986	-0.09	-0.09	0.00	-0.76	-0.85	-0.88	-0.86
1987	-0.35	-0.49	-0.45	-0.85	-1.03	-0.98	-0.87
1988	-0.36	-0.49	-0.51	-0.80	-0.85	-0.85	-0.84
1989	-0.29	-0.44	-0.50	-0.82	-1.04	-1.00	-0.86
1990	-0.34	-0.48	-0.49	-0.80	-0.86	-0.85	-0.86
1991	-0.30	-0.46	-0.51	-0.81	-0.86	-0.85	-0.84
Avg	-0.06	-0.19	-0.26	-0.68	-0.92	-0.92	-0.85

Department of Water Resources, Delta Modeling Section

Table 3-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 2B

Old River @ West End of Grant Line Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.35	-0.48	-0.52	-0.81	-0.84	-0.82	-0.83
1977	-0.38	-0.50	-0.49	-0.78	-0.84	-0.83	-0.81
1978	0.34	0.34	0.14	-0.72	-0.82	-1.00	-0.83
1979	-0.13	-0.38	-0.39	-0.77	-0.99	-0.97	-0.83
1980	-0.10	-0.37	-0.06	-0.71	-0.94	-0.87	-0.82
1981	-0.29	-0.44	-0.47	-0.82	-1.01	-0.97	-0.83
1982	1.24	1.24	0.39	-0.66	-0.80	-0.82	-0.93
1983	0.82	0.82	0.75	1.29	-0.69	-0.95	-0.62
1984	-0.23	-0.42	-0.45	-0.77	-0.96	-0.83	-0.83
1985	-0.30	-0.46	-0.49	-0.81	-1.01	-0.96	-0.83
1986	0.09	0.10	0.00	-0.71	-0.81	-0.86	-0.82
1987	-0.34	-0.48	-0.44	-0.82	-1.01	-0.97	-0.83
1988	-0.35	-0.48	-0.50	-0.77	-0.83	-0.83	-0.81
1989	-0.28	-0.43	-0.49	-0.80	-1.02	-0.98	-0.82
1990	-0.33	-0.47	0.48	-0.78	-0.83	-0.83	-0.83
1991	-0.29	-0.45	-0.50	-0.78	-0.83	-0.82	-0.82
Avg	-0.06	-0.18	-0.25	-0.64	-0.89	-0.89	-0.82

Old River @ Northern End of West Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.38	-0.47	-0.50	-0.72	-0.81	-0.75	-0.74
1977	-0.40	-0.48	-0.47	-0.71	-0.75	-0.75	-0.74
1978	0.10	0.10	-0.01	-0.61	-0.75	-0.94	-0.74
1979	-0.20	-0.36	-0.37	-0.67	-0.94	-0.91	-0.74
1980	-0.17	-0.35	-0.15	-0.60	-0.87	-0.83	-0.73
1981	-0.32	-0.42	-0.45	-0.73	-0.96	-0.91	-0.74
1982	0.82	0.82	0.10	-0.62	-0.71	-0.73	-0.86
1983	0.55	0.55	0.45	0.64	-0.66	-0.88	-0.52
1984	-0.27	-0.40	-0.43	-0.68	-0.90	-0.80	-0.74
1985	-0.33	-0.44	-0.47	-0.72	-0.96	-0.90	-0.74
1986	-0.03	-0.03	-0.11	-0.61	-0.72	-0.82	-0.73
1987	-0.36	-0.46	-0.42	-0.73	-0.96	-0.91	-0.74
1988	-0.37	-0.46	-0.49	-0.70	-0.76	-0.76	-0.74
1989	-0.31	-0.41	-0.47	-0.73	-0.96	-0.92	-0.73
1990	-0.36	-0.46	0.47	-0.71	-0.76	-0.76	-0.73
1991	-0.32	-0.43	-0.48	-0.71	-0.76	-0.75	-0.74
Avg	-0.15	-0.23	-0.30	-0.60	-0.83	-0.83	-0.73

Department of Water Resources, Delta Modeling Section

Table 3-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 2B

Old River @ Highway 4

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.33	-0.40	-0.43	-0.65	-0.69	-0.67	-0.67
1977	-0.36	-0.42	-0.40	-0.64	-0.68	-0.68	-0.66
1978	0.16	0.16	-0.03	-0.56	-0.66	-0.82	-0.67
1979	-0.18	-0.30	-0.31	-0.61	-0.82	-0.75	-0.67
1980	-0.16	-0.29	-0.15	-0.55	-0.70	-0.68	-0.66
1981	-0.28	-0.36	-0.39	-0.66	-0.84	-0.74	-0.67
1982	0.85	0.85	0.22	-0.49	-0.64	-0.66	-0.74
1983	0.58	0.58	0.49	0.67	-0.46	-0.75	-0.45
1984	-0.24	-0.33	-0.36	-0.61	-0.77	-0.67	-0.67
1985	-0.29	-0.37	-0.40	-0.65	-0.84	-0.71	-0.67
1986	-0.04	-0.04	-0.11	-0.54	-0.65	-0.67	-0.66
1987	-0.32	-0.39	-0.36	-0.66	-0.84	-0.73	-0.67
1988	-0.33	-0.40	-0.42	-0.63	-0.68	-0.68	-0.66
1989	-0.27	-0.35	-0.40	-0.65	-0.84	-0.75	-0.66
1990	-0.32	-0.39	-0.40	-0.64	-0.68	-0.68	-0.66
1991	-0.29	-0.37	-0.41	-0.63	-0.68	-0.68	-0.67
Avg	-0.11	-0.18	-0.24	-0.53	-0.72	-0.71	-0.66

Middle River Upstream of Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1.59	1.44	1.20	1.14	1.22	1.53	1.59
1977	1.51	1.33	1.49	1.45	1.33	1.67	1.78
1978	4.20	4.20	3.26	1.00	0.82	1.35	0.96
1979	2.02	1.47	1.35	0.79	1.20	1.37	1.64
1980	2.13	1.50	2.22	1.00	0.77	1.44	1.81
1981	1.68	1.44	1.34	1.20	0.95	1.36	1.54
1982	0.96	0.96	4.61	1.21	0.98	0.92	0.86
1983	0.62	0.62	0.53	0.86	1.47	0.75	1.22
1984	1.79	1.40	1.31	1.49	1.24	1.44	1.67
1985	1.64	1.43	1.26	1.22	0.98	1.39	1.57
1986	2.88	2.88	2.50	1.08	1.35	1.41	1.69
1987	1.56	1.37	1.45	1.17	1.01	1.37	1.50
1988	1.65	1.48	1.35	1.40	1.36	1.64	1.74
1989	1.61	1.35	1.27	1.32	0.96	1.35	1.60
1990	1.64	1.43	1.47	1.32	1.42	1.63	1.61
1991	1.65	1.43	1.33	1.46	1.46	1.50	1.71
Avg	1.82	1.61	1.75	1.19	1.16	1.38	1.53

Department of Water Resources, Delta Modeling Section

Table 3-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 2B

Middle River @ Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.38	-0.45	-0.48	-0.69	-0.73	-0.71	-0.71
1977	-0.40	-0.46	-0.45	-0.68	-0.72	-0.72	-0.71
1978	0.10	0.10	-0.09	-0.59	-0.69	-0.84	-0.70
1979	-0.23	-0.34	-0.36	-0.64	-0.83	-0.80	-0.71
1980	-0.21	-0.33	-0.20	-0.58	-0.74	-0.71	-0.70
1981	-0.33	-0.40	-0.43	-0.69	-0.85	-0.78	-0.71
1982	0.92	0.92	0.16	-0.52	-0.67	-0.69	-0.76
1983	0.59	0.59	0.50	0.77	-0.50	-0.79	-0.49
1984	-0.29	-0.38	-0.41	-0.65	-0.80	-0.71	-0.71
1985	-0.34	-0.42	-0.45	-0.69	-0.85	-0.75	-0.71
1986	-0.10	-0.10	-0.17	-0.58	-0.69	-0.71	-0.70
1987	-0.37	-0.44	-0.40	-0.69	-0.85	-0.77	-0.71
1988	-0.38	-0.44	-0.47	-0.67	-0.72	-0.72	-0.71
1989	-0.32	-0.39	-0.45	-0.69	-0.85	-0.80	-0.70
1990	-0.36	-0.43	-0.45	-0.68	-0.72	-0.72	-0.71
1991	-0.34	-0.41	-0.46	-0.68	-0.73	-0.72	-0.71
Avg	-0.15	-0.21	-0.29	-0.56	-0.75	-0.75	-0.70

SJR @ Brandt Bridge

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.18	1.00	0.74	0.00	0.05	0.18	0.16
1977	0.11	0.78	0.82	0.16	0.03	0.22	0.30
1978	4.02	4.02	3.07	1.58	0.28	0.06	0.32
1979	1.15	3.45	3.86	0.33	0.02	0.07	0.24
1980	1.36	3.94	1.76	1.61	0.46	0.14	0.35
1981	0.33	1.31	1.00	0.06	-0.12	0.10	0.16
1982	7.47	7.47	4.97	2.47	0.44	0.34	1.00
1983	5.59	5.59	5.94	9.83	3.94	0.35	1.56
1984	0.65	2.15	2.26	0.26	0.06	0.15	0.27
1985	0.33	1.31	1.07	0.06	-0.11	0.12	0.18
1986	2.45	2.45	2.12	1.91	0.14	0.13	0.26
1987	0.21	1.07	0.84	0.00	-0.11	0.10	0.14
1988	0.17	0.97	0.80	0.14	0.09	0.20	0.28
1989	0.30	1.20	1.14	0.10	-0.11	0.09	0.17
1990	0.25	1.15	1.07	0.12	0.12	0.19	0.16
1991	0.37	1.47	1.13	0.16	0.13	0.15	0.29
Avg	1.56	2.46	2.04	1.17	0.33	0.16	0.37

Table 3-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 2B

Grant Line Canal @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.07	-0.37	-0.42	1.01	1.11	1.36	1.37
1977	0.00	-0.39	-0.35	1.28	1.14	1.45	1.57
1978	2.02	2.02	1.50	2.03	1.37	1.19	1.44
1979	0.60	-0.27	-0.27	1.38	1.12	1.21	1.39
1980	0.69	-0.26	0.85	1.99	1.44	1.27	1.47
1981	0.18	-0.32	-0.37	1.14	0.84	1.21	1.34
1982	2.84	2.84	2.24	2.48	1.51	1.43	1.70
1983	2.06	2.06	2.09	3.53	3.25	1.40	2.17
1984	0.34	-0.30	-0.35	1.40	1.16	1.29	1.41
1985	0.17	-0.34	-0.39	1.14	0.87	1.24	1.36
1986	1.27	1.27	1.07	2.22	1.30	1.27	1.41
1987	0.08	-0.37	-0.33	1.01	0.85	1.21	1.31
1988	0.07	-0.36	-0.39	1.23	1.20	1.41	1.54
1989	0.16	-0.33	-0.39	1.17	0.85	1.19	1.35
1990	0.11	-0.36	-0.35	1.20	1.25	1.40	1.37
1991	0.20	-0.34	-0.38	1.28	1.28	1.31	1.55
Avg	0.68	0.26	0.24	1.59	1.28	1.30	1.48

Grant Line Canal @ West End

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.14	-0.38	-0.42	1.01	1.10	1.29	1.37
1977	-0.18	-0.39	-0.37	1.33	1.15	1.42	1.48
1978	1.00	1.00	0.68	1.87	1.33	1.13	1.40
1979	0.17	-0.28	-0.27	1.32	1.09	1.17	1.35
1980	0.22	-0.26	0.30	1.83	1.37	1.23	1.41
1981	-0.06	-0.33	-0.37	1.17	0.86	1.15	1.30
1982	1.87	1.87	1.12	2.27	1.47	1.39	1.57
1983	1.31	1.31	1.28	2.19	2.94	1.31	2.02
1984	0.02	-0.31	-0.35	1.34	1.14	1.24	1.37
1985	-0.08	-0.35	-0.39	1.17	0.89	1.17	1.32
1986	0.56	0.56	0.42	2.03	1.29	1.22	1.37
1987	-0.13	-0.37	-0.33	1.01	0.87	1.15	1.27
1988	-0.14	-0.37	-0.40	1.30	1.25	1.39	1.47
1989	-0.07	-0.33	-0.39	1.26	0.88	1.13	1.31
1990	-0.11	-0.37	-0.37	1.28	1.31	1.38	1.41
1991	-0.06	-0.34	-0.39	1.33	1.32	1.33	1.46
Avg	0.26	0.04	-0.02	1.48	1.27	1.26	1.43

Department of Water Resources, Delta Modeling Section

Appendix 4

Alternative 3E

Delta Modeling Assumptions & Results

Figure 4-1
Alternative 3E

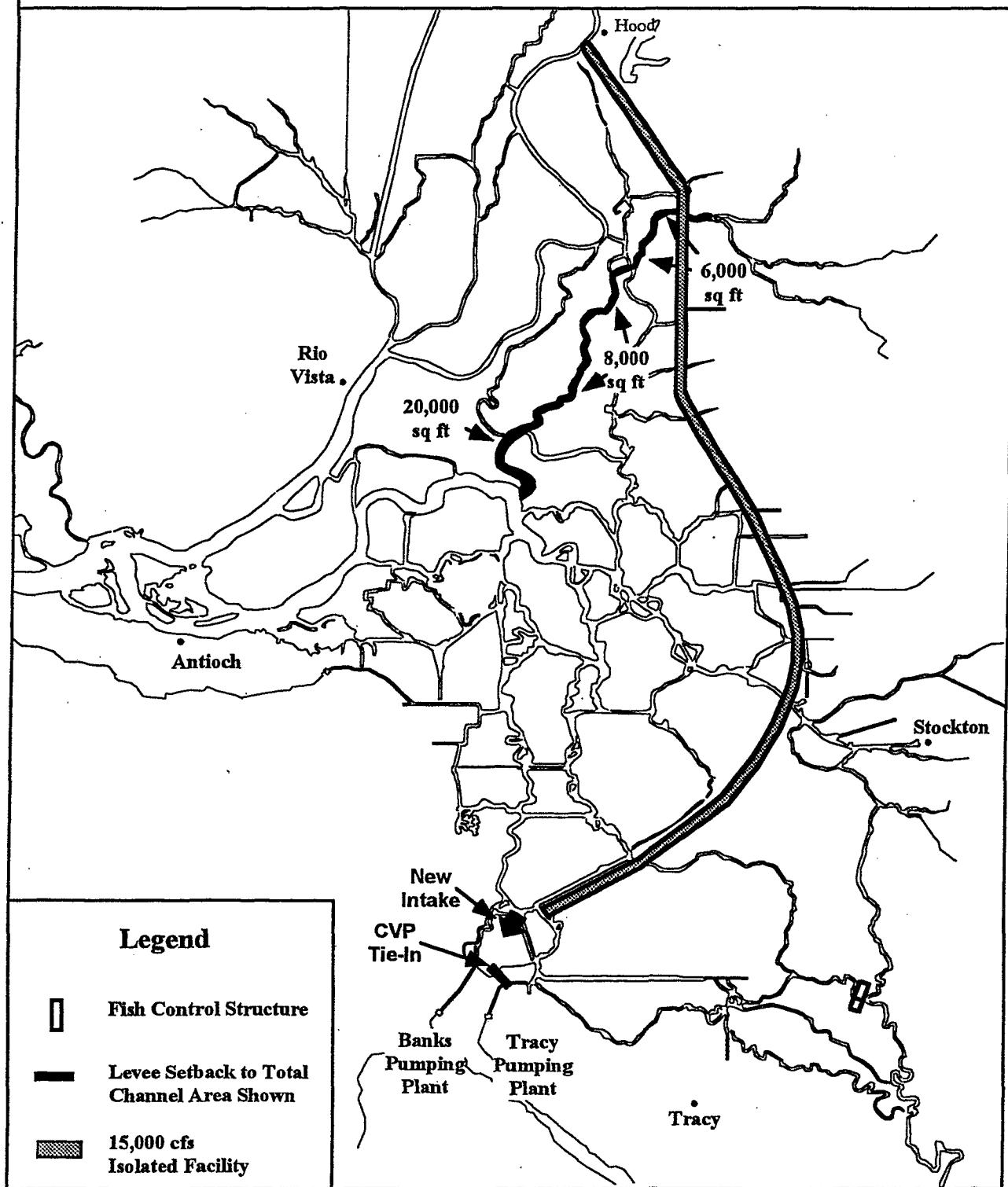


Table 4-1 (cont.)
Delta Hydrology for Alternative 3E (DWRSIM Study 551)
Water Years 1976 - 1991

(values in cfs)

Yolo Bypass Inflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	146	0	49	16	18	163	118	81	67	49	407	168
1977	49	34	49	65	54	146	168	537	67	146	81	34
1978	49	202	764	14,182	6,842	16,800	1,042	49	67	244	81	50
1979	65	118	33	797	648	228	50	65	67	114	49	50
1980	65	101	1,057	31,177	43,629	15,044	50	211	286	211	211	50
1981	65	34	146	488	594	195	50	65	101	98	81	50
1982	33	3,260	23,224	20,736	22,111	5,139	36,569	293	67	65	49	47
1983	130	1,613	10,571	20,866	58,628	113,532	15,444	3,058	840	49	49	50
1984	33	5,428	46,562	14,979	882	553	118	81	67	49	49	50
1985	1,382	1,109	49	146	216	65	50	65	67	49	49	50
1986	49	303	683	49	88,770	55,117	1,025	65	67	49	49	50
1987	65	34	98	146	288	423	84	81	67	49	49	50
1988	33	118	488	1,236	108	65	84	65	50	49	49	50
1989	65	84	228	81	90	537	101	81	67	49	49	17
1990	16	50	33	325	756	33	168	49	67	49	49	50
1991	65	0	65	33	126	748	50	65	67	49	49	50

Contra Costa Canal Diversion

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	220	187	148	120	103	197	0	145	249	164	168	279
1977	241	66	49	115	162	197	180	241	249	324	273	279
1978	241	193	177	143	162	99	111	220	281	511	538	464
1979	413	183	172	120	103	200	0	220	474	329	356	264
1980	236	183	146	120	63	99	0	220	418	327	355	264
1981	236	188	146	120	103	99	0	220	430	332	356	264
1982	236	185	145	120	103	34	0	220	479	327	355	264
1983	233	185	145	120	103	99	0	220	410	329	356	279
1984	223	143	181	122	104	99	0	220	435	329	356	281
1985	224	183	145	120	103	99	0	220	434	330	356	264
1986	237	150	145	120	56	150	0	220	420	327	355	264
1987	234	183	145	120	103	99	0	220	437	329	338	264
1988	96	71	99	120	103	99	0	220	281	153	231	103
1989	213	183	145	120	103	99	111	220	481	511	538	264
1990	213	183	145	120	103	197	0	241	249	250	233	166
1991	184	193	177	143	162	197	180	241	249	324	273	279

Department of Water Resources, Delta Modeling Section

Table 4-1 (cont.)
Delta Hydrology for Alternative 3E (DWRSIM Study 551)
Water Years 1976 - 1991

(values in cfs)

Banks Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	10,300	10,017	8,196	6,236	6,096	6,082	4,904	1,000	10,212	4,870	2,166	2,032
1977	3,427	2,897	3,399	2,670	1,085	652	608	491	492	1,353	951	815
1978	1,027	1,696	9,565	2,325	2,983	3,772	5,420	1,000	8,121	7,469	5,367	9,344
1979	7,099	6,333	10,223	10,009	5,051	5,810	5,002	1,000	10,214	5,197	2,233	3,319
1980	6,144	7,650	10,014	4,248	3,769	3,786	4,530	1,000	10,211	5,737	2,181	6,002
1981	7,086	3,191	8,961	5,339	6,149	5,980	5,297	1,000	10,231	6,544	2,501	2,472
1982	3,721	10,300	10,300	8,111	6,964	6,757	7,315	1,000	10,300	6,935	7,858	10,300
1983	10,300	9,045	6,191	4,148	4,517	4,470	5,711	1,000	10,017	8,315	9,196	7,696
1984	5,208	4,705	4,352	4,990	5,886	5,990	5,861	1,000	10,259	8,555	2,950	6,484
1985	8,110	10,300	10,300	4,942	5,569	5,643	5,169	1,000	10,224	5,983	2,433	2,335
1986	2,705	4,559	9,664	10,012	1,579	4,505	5,690	1,000	10,252	8,331	2,764	5,855
1987	6,088	2,928	10,147	6,249	4,722	4,492	3,509	1,000	1,785	1,616	1,791	2,048
1988	960	942	10,300	10,240	2,370	1,923	2,541	394	496	787	1,119	794
1989	707	3,611	3,763	4,901	912	6,121	6,558	1,000	10,221	5,911	2,378	3,391
1990	3,691	2,170	3,667	10,236	2,815	3,427	2,314	1,000	734	1,085	1,190	1,506
1991	789	837	1,416	1,670	833	10,190	3,231	1,000	60	101	632	531

Tracy Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	4,413	4,299	4,207	4,207	990	1,654	2,298	106	144	1,809	2,390	2,670
1977	2,078	1,620	1,092	2,140	343	581	764	29	42	2,330	3,632	2,020
1978	1,034	1,273	2,447	156	1,090	1,860	3,520	4,193	4,600	1,042	4,599	4,574
1979	4,421	4,303	4,207	4,207	1,548	2,895	4,340	4,599	1,207	4,599	4,599	4,454
1980	4,348	4,270	4,207	4,207	855	1,708	2,745	3,308	4,600	3,546	4,599	4,480
1981	4,364	4,277	4,207	3,146	1,413	2,821	4,229	2,995	3,028	4,599	4,599	4,440
1982	3,282	4,266	4,207	4,207	1,214	2,911	2,857	3,471	4,600	4,599	4,599	4,498
1983	4,375	4,282	2,687	1,191	1,220	1,828	2,886	3,447	4,600	4,599	4,599	3,177
1984	1,295	1,553	2,663	1,181	1,383	3,148	4,600	4,599	1,937	4,086	4,599	4,494
1985	4,372	4,281	4,207	3,477	1,685	2,887	4,213	2,994	3,028	4,599	4,599	3,281
1986	2,696	2,437	4,207	4,207	2,910	1,482	2,293	2,755	4,142	1,846	4,599	4,419
1987	4,327	4,261	4,207	1,186	878	1,734	3,511	2,994	3,031	4,599	2,529	1,953
1988	2,099	2,225	4,207	4,207	878	1,515	2,064	693	730	2,704	3,477	1,625
1989	1,583	2,796	3,178	4,207	788	1,099	3,683	2,994	3,030	4,599	3,679	4,382
1990	2,740	1,915	2,027	4,207	2,057	2,342	2,149	1,061	109	2,429	3,328	1,823
1991	1,424	1,379	1,562	1,708	651	4,225	2,629	2,459	671	3,396	3,842	2,285

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Table 4-1 (cont.)
Delta Hydrology for Alternative 3E (DWRSIM Study 551)
Water Years 1976 - 1991

(values in cfs)

Delta Channel Depletions (For Areas Not Serviced by IF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	649	739	755	46	295	829	1,069	1,800	1,995	2,043	1,205	985
1977	942	687	707	-153	319	638	1,254	1,160	2,070	2,090	1,501	918
1978	906	600	-114	-5,030	-1,912	-2,158	173	1,402	2,118	2,088	1,566	1,040
1979	979	602	730	-2,183	-2,559	-62	813	1,399	2,195	2,039	1,493	1,139
1980	716	635	-143	-2,700	-3,601	286	808	1,213	2,002	1,898	1,499	1,064
1981	948	724	613	-745	126	-371	1,055	1,480	2,233	2,145	1,582	1,003
1982	714	79	-678	-4,409	-637	-3,269	109	1,392	1,914	2,023	1,517	755
1983	673	-1,265	-1,038	-4,734	-3,553	-4,642	-200	1,230	2,124	2,018	1,534	1,000
1984	898	-166	-2,200	-151	-185	577	1,008	1,558	2,032	2,127	1,521	1,148
1985	704	-583	-177	-511	-23	-490	1,092	1,584	2,183	2,085	1,493	958
1986	844	319	-187	-1,493	-5,931	-1,752	834	1,404	2,126	2,057	1,600	894
1987	930	753	698	-237	-403	-361	1,225	1,661	2,050	1,916	1,560	1,129
1988	878	608	109	-1,456	322	709	1,047	1,373	1,995	2,252	1,571	1,124
1989	947	600	520	-145	50	-224	1,198	1,618	2,092	2,173	1,537	699
1990	764	607	691	-503	-472	634	1,217	816	2,260	2,137	1,558	1,114
1991	898	726	686	41	277	-786	1,017	1,247	1,607	2,101	1,508	1,181

Net Delta Outflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	9,131	6,792	7,011	7,578	15,468	11,761	6,972	6,299	6,896	6,737	6,557	4,097
1977	5,652	5,855	5,329	4,502	6,945	6,312	7,101	6,940	6,897	6,683	6,583	3,885
1978	4,076	5,080	6,012	66,596	52,636	70,128	44,158	24,998	10,512	8,712	7,412	5,488
1979	-8,146	7,164	6,859	18,461	38,836	34,076	16,022	14,185	11,193	7,559	7,421	4,942
1980	6,919	6,606	9,656	80,522	133,047	63,654	19,061	18,839	9,024	10,359	8,237	6,226
1981	8,859	6,961	6,936	19,806	24,003	22,959	9,616	8,863	5,777	6,703	6,663	4,452
1982	6,148	14,819	69,088	76,581	103,840	89,179	142,498	53,243	15,612	10,273	9,641	9,916
1983	13,801	40,159	86,527	113,158	189,009	254,483	102,785	80,486	78,721	22,421	10,573	20,389
1984	25,267	83,619	156,612	73,050	42,556	35,459	16,294	14,195	10,178	8,028	8,021	5,490
1985	6,133	21,302	11,085	11,322	15,881	15,182	8,507	11,094	5,648	6,767	6,676	4,450
1986	6,120	7,058	7,510	10,574	203,108	156,450	25,428	18,682	9,090	8,148	8,120	5,477
1987	7,745	6,616	6,798	11,288	20,389	25,518	9,638	8,037	6,217	6,687	6,602	4,289
1988	6,059	6,613	7,218	15,851	11,401	7,906	6,771	6,657	6,898	6,491	6,597	4,105
1989	4,037	5,108	5,403	4,500	8,070	40,103	14,951	11,050	5,506	6,718	6,463	4,477
1990	5,419	6,142	5,931	6,230	11,403	6,707	9,902	5,796	6,999	6,514	6,518	4,246
1991	4,122	4,717	4,751	4,500	7,405	21,519	11,193	5,930	6,148	6,498	6,476	4,002

Department of Water Resources, Delta Modeling Section

Table 4-2
Operation of Delta Facilities
under
Alternative 3E

Delta Cross Channel												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	X	X	X	X	X	X	X	X	X	O	O	X
1977	X	X	X	X	X	X	X	X	X	O	O	X
1978	X	X	X	X	X	X	X	X	X	O	O	X
1979	X	X	X	X	X	X	X	X	X	O	O	X
1980	X	X	X	X	X	X	X	X	X	O	O	X
1981	X	X	X	X	X	X	X	X	X	O	O	X
1982	X	X	X	X	X	X	X	X	X	O	O	X
1983	X	X	X	X	X	X	X	X	X	O	O	X
1984	X	X	X	X	X	X	X	X	X	O	O	X
1985	X	X	X	X	X	X	X	X	X	O	O	X
1986	X	X	X	X	X	X	X	X	X	O	O	X
1987	X	X	X	X	X	X	X	X	X	O	O	X
1988	X	X	X	X	X	X	X	X	X	O	O	X
1989	X	X	X	X	X	X	X	X	X	O	O	X
1990	X	X	X	X	X	X	X	X	X	O	O	X
1991	X	X	X	X	X	X	X	X	X	O	O	X

Note: 'X' denotes gates closed, 'O' denotes gates open.

Suisun Marsh Salinity Control Gates

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	O	O	O	O	O	O	O	O	N	N	N	N
1977	O	O	O	O	O	O	O	O	N	N	N	N
1978	N	N	N	N	N	N	N	N	N	N	N	N
1979	O	O	O	O	O	O	O	O	N	N	N	N
1980	N	N	N	N	N	N	N	N	N	N	N	N
1981	O	O	O	O	O	O	O	O	N	N	N	N
1982	N	N	N	N	N	N	N	N	N	N	N	N
1983	N	N	N	N	N	N	N	N	N	N	N	N
1984	N	N	N	N	N	N	N	N	N	N	N	N
1985	O	O	O	O	O	O	O	O	N	N	N	N
1986	N	N	N	N	N	N	N	N	N	N	N	N
1987	O	O	O	O	O	O	O	O	N	N	N	N
1988	O	O	O	O	O	O	O	O	N	N	N	N
1989	O	O	O	O	O	O	O	O	N	N	N	N
1990	O	O	O	O	O	O	O	O	N	N	N	N
1991	O	O	O	O	O	O	O	O	N	N	N	N

Note: 'N' denotes gates not operating, 'O' denotes gates are operating.

Table 4-2 (cont.)
Operation of Delta Facilities

under

Alternative 3E

Year	Head of Old River Fish Control Structure												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-31)	May	Jun	Jul	Aug	Sep
1976	O	O	N	N	N	N	N	O	O	N	N	N	N
1977	O	O	N	N	N	N	N	O	O	N	N	N	N
1978	O	O	N	N	N	N	N	O	O	N	N	N	N
1979	O	O	N	N	N	N	N	N	N	N	N	N	N
1980	O	O	N	N	N	N	N	N	N	N	N	N	N
1981	O	O	N	N	N	N	N	O	O	N	N	N	N
1982	O	O	N	N	N	N	N	O	O	N	N	N	N
1983	N	O	N	N	N	N	N	N	N	N	N	N	N
1984	O	N	N	N	N	N	N	O	O	N	N	N	N
1985	O	O	N	N	N	N	N	O	O	N	N	N	N
1986	O	O	N	N	N	N	N	O	O	N	N	N	N
1987	O	O	N	N	N	N	N	O	O	N	N	N	N
1988	O	O	N	N	N	N	N	O	O	N	N	N	N
1989	O	O	N	N	N	N	N	O	O	N	N	N	N
1990	O	O	N	N	N	N	N	O	O	N	N	N	N
1991	O	O	N	N	N	N	N	O	O	N	N	N	N

Note: "N" denotes gates not operating, 'O' denotes gates are operating to make complete closure.

Table 4-2 (cont.)
Operation of Delta Facilities
under
Alternative 3E

Clifton Court Forebay Intake Gate Priority

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3	4	4	4	4	4	3	2	2	3	3	3
1977	3	4	4	4	4	4	3	2	2	3	3	3
1978	3	4	4	4	4	4	3	2	2	3	3	3
1979	3	4	4	4	4	4	3	2	2	3	3	3
1980	3	4	4	4	4	4	3	2	2	3	3	3
1981	3	4	4	4	4	4	3	2	2	3	3	3
1982	3	4	4	4	4	4	3	2	2	3	3	3
1983	3	4	4	4	4	4	3	2	2	3	3	3
1984	3	4	4	4	4	4	3	2	2	3	3	3
1985	3	4	4	4	4	4	3	2	2	3	3	3
1986	3	4	4	4	4	4	3	2	2	3	3	3
1987	3	4	4	4	4	4	3	2	2	3	3	3
1988	3	4	4	4	4	4	3	2	2	3	3	3
1989	3	4	4	4	4	4	3	2	2	3	3	3
1990	3	4	4	4	4	4	3	2	2	3	3	3
1991	3	4	4	4	4	4	3	2	2	3	3	3

Note: See Figure 7 for description of the values.

Monthly Average Diversion into Clifton Court Forebay (cfs)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1,000	1,000	1,000	1,000	1,001	1,000	17	16	17	1,000	1,000	1,000
1977	1,000	1,000	1,000	1,000	1,001	1,000	17	16	17	1,000	1,000	1,000
1978	1,000	1,000	1,000	1,000	1,001	1,000	17	1,122	17	1,000	1,000	1,000
1979	1,000	1,000	1,000	1,000	1,001	1,000	17	1,575	17	1,000	1,000	1,000
1980	1,000	1,000	1,000	1,000	1,001	1,000	17	94	1,507	1,000	1,000	1,000
1981	1,000	1,000	1,000	1,000	1,001	1,000	17	16	479	1,000	1,000	1,000
1982	1,000	1,000	1,000	1,000	1,001	1,000	17	419	1,361	1,000	1,000	1,000
1983	1,000	1,000	1,000	1,000	1,001	1,000	17	183	1,524	1,000	1,000	1,000
1984	1,000	1,000	1,000	1,000	1,001	1,000	17	1,754	17	1,000	1,000	1,000
1985	1,000	1,000	1,000	1,000	1,001	1,000	17	205	352	1,000	1,000	1,000
1986	1,000	1,000	1,000	1,000	1,001	1,000	17	16	1,322	1,000	1,000	1,000
1987	1,000	1,000	1,000	1,000	1,001	1,000	17	194	17	1,000	1,000	1,000
1988	1,000	1,000	1,000	1,000	1,001	1,000	17	16	17	1,000	1,000	1,000
1989	1,000	1,000	1,000	1,000	1,001	1,000	17	92	109	1,000	1,000	1,000
1990	1,000	1,000	1,000	1,000	1,001	1,000	17	16	17	1,000	1,000	1,000
1991	1,000	1,000	1,000	1,000	1,001	1,000	17	16	17	1,000	1,000	1,000

Note: Alternative 3E (modified) assumes 1,000 cfs minimum diversion in forebay from Oct-Mar, Jul-Sep

Table 4-2 (cont.)
Operation of Delta Facilities
under
Alternative 3E

**Monthly Average Flow Diverted from Sacramento River at Hood
into Isolated Facility
(cfs)**

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	13,792	13,449	11,589	9,448	6,203	7,288	7,796	2,575	12,495	7,885	4,252	4,042
1977	4,799	3,634	3,642	3,847	610	600	2,286	952	2,581	4,907	4,748	2,210
1978	1,409	2,018	11,217	1,481	1,072	5,174	9,137	5,000	14,687	9,697	10,215	13,374
1979	10,923	9,651	13,594	13,216	5,598	7,942	9,737	5,000	13,512	10,901	6,957	7,382
1980	9,638	11,008	13,333	7,455	3,623	4,517	7,659	5,000	15,000	10,159	6,899	9,980
1981	10,831	6,631	12,293	7,485	6,627	7,866	10,026	4,982	15,000	12,411	7,346	6,415
1982	6,128	13,575	13,657	11,318	7,198	9,620	10,292	5,000	15,000	12,617	12,605	13,961
1983	13,774	12,455	8,082	4,339	4,736	5,298	8,723	5,000	15,000	13,997	13,992	10,263
1984	5,805	5,387	6,191	5,175	6,285	8,300	10,959	5,000	14,179	13,868	7,774	10,642
1985	11,583	13,710	13,712	7,424	6,306	7,636	9,985	5,000	15,000	11,733	7,155	4,997
1986	4,638	6,005	13,076	13,219	5,488	5,663	8,101	4,617	15,000	11,322	7,628	9,586
1987	9,786	6,343	13,485	6,491	4,622	5,471	7,777	5,000	6,817	7,247	4,526	3,588
1988	2,351	2,225	13,670	13,451	2,266	2,768	5,033	1,891	2,978	4,969	4,902	2,042
1989	1,676	5,475	6,034	8,139	736	6,441	10,957	5,000	15,000	11,886	6,266	6,911
1990	4,639	3,232	4,930	13,487	4,069	5,124	5,126	2,378	2,765	4,862	4,789	2,927
1991	1,531	1,362	2,103	2,387	600	13,694	6,357	4,243	2,116	4,800	4,663	2,467

**Monthly Average Flow Diverted from Isolated Facility
into Islands for Agriculture
(cfs)**

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	73	127	195	4	104	419	462	1,296	1,998	2,027	546	258
1977	265	124	163	37	173	261	686	317	1,846	2,038	980	285
1978	306	52	224	0	0	802	172	722	1,727	2,014	1,072	349
1979	350	16	175	0	0	225	310	767	1,865	1,943	961	485
1980	140	96	122	0	0	20	272	606	1,430	1,731	952	383
1981	336	168	136	0	64	59	349	798	1,988	2,095	1,066	393
1982	122	9	165	0	18	382	112	758	1,395	1,919	977	124
1983	97	140	224	0	0	0	109	571	1,646	1,923	1,030	296
1984	270	140	192	4	15	140	375	954	1,794	2,057	1,054	545
1985	96	140	224	4	51	93	413	969	1,860	1,986	957	291
1986	230	10	224	0	0	735	257	676	1,636	1,977	1,079	239
1987	320	141	141	56	25	201	532	966	1,810	1,864	1,005	456
1988	261	63	177	4	18	276	254	626	1,512	2,279	1,122	500
1989	338	75	102	29	35	220	481	853	1,608	2,184	1,023	101
1990	200	160	255	40	196	276	437	236	1,642	2,158	1,087	482
1991	291	133	138	9	122	248	348	612	1,349	2,111	1,008	514

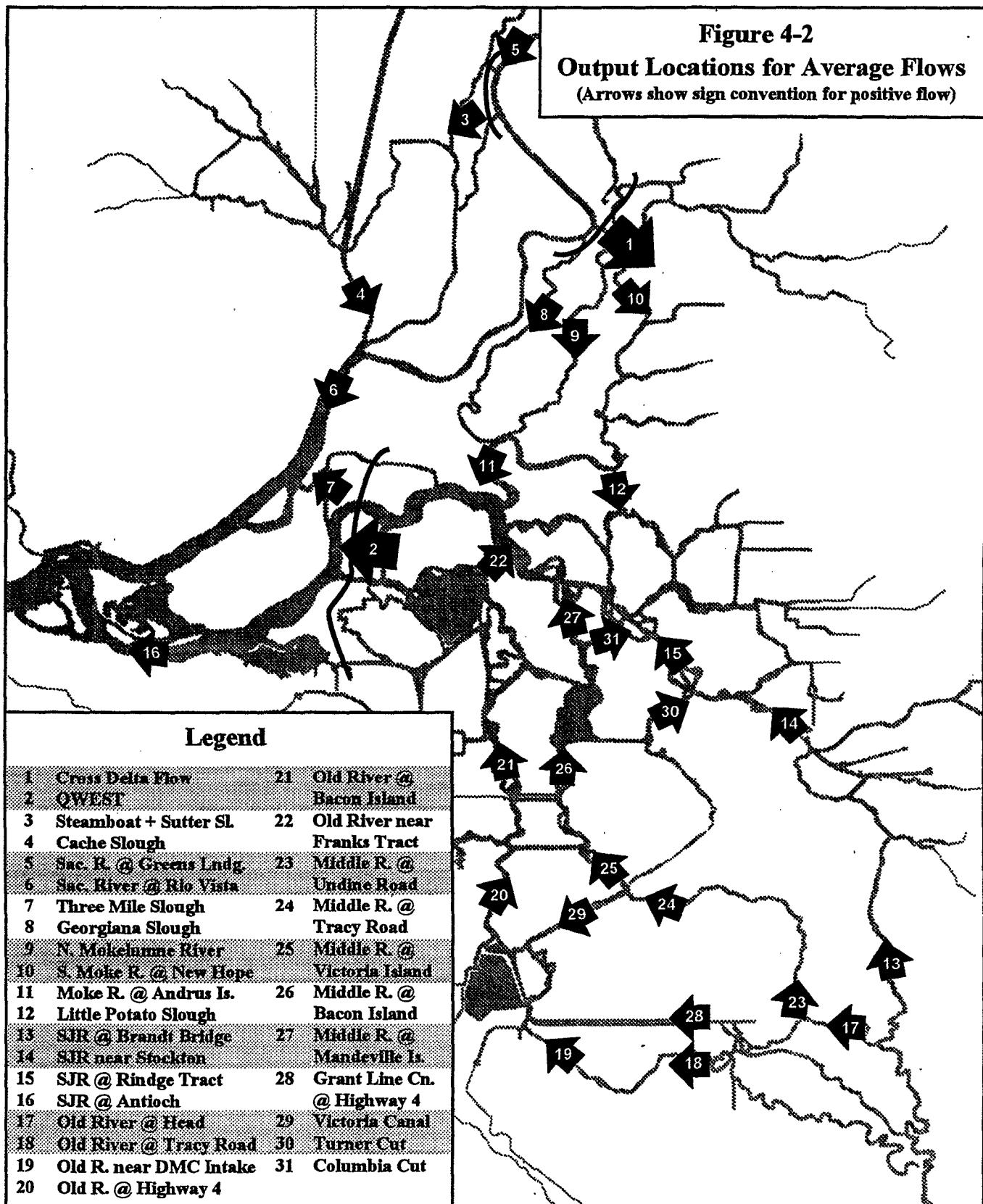


Table 4-3
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Cross Delta Flow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	919	974	990	1092	2181	1758	894	892	1117	1163	4142	3654	939
1977	874	994	1007	785	1384	1273	1142	1141	1133	1479	4095	3940	994
1978	988	1020	720	4468	3845	4021	2730	2729	1786	453	3867	3885	765
1979	892	1017	966	1507	2993	2893	1258	1261	1498	1408	3977	3890	888
1980	937	1009	1023	3466	6542	3604	1596	1603	1370	315	3610	3675	783
1981	864	1116	962	2377	2803	2584	1056	1054	1344	1016	4067	3961	919
1982	1056	1519	4566	4182	5826	5909	6231	6230	3291	734	3707	3587	600
1983	759	3005	4822	5448	7563	7684	5893	5893	4779	3767	2696	3466	1804
1984	2525	5748	7472	4365	3368	3236	1623	1625	1869	1243	3942	3834	807
1985	721	2410	1323	1557	1996	1890	872	870	1682	981	4078	3949	937
1986	1102	1102	853	1003	6668	6520	1554	1554	1127	172	3940	3840	804
1987	918	1139	953	1647	2534	2864	1273	1273	1360	1259	4100	3992	979
1988	1149	1225	886	1891	1954	1511	935	934	1156	1480	4244	3999	1009
1989	983	971	926	735	1467	4034	1905	1904	1640	1002	4120	3991	886
1990	1095	1234	1198	795	1702	1207	1332	1332	777	1524	4213	3986	987
1991	978	1085	1048	903	1423	2391	1465	1464	802	1311	4207	3982	1009
Avg	1048	1598	1857	2264	3391	3335	1985	1985	1671	1207	3938	3852	944

QWEST

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	4029	2021	2253	2347	3843	3042	2970	2970	2412	1571	3403	3121	891
1977	2525	2274	1755	1611	1819	1582	2485	2484	2483	1658	3414	3208	676
1978	997	1459	1775	11722	13062	18177	20930	20925	14085	8038	5211	3888	2013
1979	3790	2378	2075	6914	13152	11781	8288	8306	6814	3848	4163	3992	1584
1980	2702	1822	2758	19066	31161	18720	9544	9583	10855	7197	6657	4652	2769
1981	4502	2329	2069	4926	5267	5973	4088	4094	3141	1188	3364	3273	1103
1982	2013	2969	7578	17218	26694	26786	45866	45871	24958	10520	6568	5882	6415
1983	8679	13682	29388	37806	55227	65337	32160	32159	33325	42920	17673	6649	9477
1984	9505	23728	37435	20491	14206	10314	6753	6766	5053	3608	4556	4483	2037
1985	1845	4696	3259	3270	4904	4495	4035	4038	3442	1252	3442	3301	1188
1986	2032	2008	2196	3879	47463	39058	14101	14100	12008	8238	4652	4564	2110
1987	3420	1985	1989	3129	4630	5656	3418	3420	2412	1352	3391	3233	1020
1988	2006	1896	1616	3321	2687	1975	2827	2827	2399	1564	3316	3243	866
1989	939	1306	1373	1444	2281	6313	4322	4329	3609	927	3366	3079	1157
1990	1318	1539	1381	1619	2721	1843	3729	3731	2940	1539	3289	3164	1001
1991	1026	1183	1183	1372	1943	5200	4111	4117	2890	1449	3247	3126	761
Avg	3208	4205	6255	8758	14441	14141	10602	10608	8302	6054	4982	3929	2192

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Steamboat & Sutter Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2971	2890	2842	2960	6526	4905	2346	2347	2601	3478	2540	2099	1965
1977	2042	2239	2216	1592	2944	2648	2596	2596	2477	3442	2481	2304	1985
1978	1975	2099	1787	21316	18036	19212	12352	12352	6239	1859	2539	2395	2158
1979	2676	2778	2865	4887	12889	12170	4336	4335	4308	4584	2531	2366	2115
1980	2557	2776	2965	15265	34447	16881	5309	5307	4511	1316	2564	2345	2134
1981	2663	2815	2767	7642	10427	9136	3199	3200	3470	3088	2545	2351	2075
1982	2539	4499	21549	20015	30624	31308	33862	33862	16344	3235	2692	2498	2150
1983	2938	13056	25163	28968	41543	40521	31479	31479	25447	20583	3160	2559	6232
1984	9153	30330	40465	21668	15560	14278	5353	5353	5356	4108	2630	2420	2164
1985	1846	8197	4134	4210	5869	5515	2588	2589	4533	2973	2549	2341	2045
1986	2558	2621	2355	3002	34692	34613	5808	5808	3909	940	2615	2448	2089
1987	2639	2810	2808	4393	8381	10926	3572	3572	3432	3227	2493	2357	2068
1988	2537	2682	2498	5644	4933	3469	2246	2246	2615	3462	2576	2354	2048
1989	1982	2174	2084	1622	3200	18873	5975	5975	4432	3023	2588	2354	2006
1990	2547	2735	2763	2101	4107	2851	3483	3484	1743	3583	2547	2350	2053
1991	1972	2218	2165	1801	3060	8027	4061	4062	1881	2901	2531	2324	2057
Avg	2850	5432	7589	9193	14827	14708	8035	8035	5831	4113	2599	2367	2334

Cache Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	832	662	698	811	1779	1331	489	490	310	430	124	657	435
1977	392	530	542	522	837	786	596	595	943	480	260	348	414
1978	457	732	1334	21572	12323	22767	4444	4439	1410	-73	324	280	331
1979	553	757	678	2684	4940	3702	1077	1079	922	750	240	306	336
1980	644	760	2001	36023	54230	19759	1329	1329	1174	68	377	455	357
1981	588	688	811	2831	3520	2802	668	669	655	327	200	299	363
1982	600	4527	29518	27215	30870	14774	46213	46213	4585	413	219	304	405
1983	793	5583	17837	29828	71029	125551	24296	24296	9984	6107	338	309	1541
1984	2421	14076	58434	21093	5306	4518	1351	1351	1164	635	174	294	329
1985	1725	3579	1228	1404	1873	1726	506	508	924	268	177	296	381
1986	580	972	1418	1271	99679	65152	2411	2410	773	-313	185	279	389
1987	569	665	752	1401	2717	3546	807	808	610	378	174	269	330
1988	575	785	1210	3262	1473	913	473	472	465	484	115	289	348
1989	441	620	753	544	982	6008	1498	1498	901	285	90	250	400
1990	575	703	678	1067	2139	731	855	858	282	448	138	290	355
1991	448	513	586	551	956	3371	1006	1008	310	485	162	307	344
Avg	762	2260	7405	9505	18416	17340	5501	5501	1588	698	206	327	441

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	6621	6514	6433	6756	14240	10904	5413	5414	6046	7770	8740	7426	4721
1977	4810	5274	5241	3918	6905	6257	6054	6055	5824	7909	8543	8069	4796
1978	4770	5031	4244	42027	35565	37807	24550	24550	13382	4146	8543	8283	4970
1979	6039	6333	6462	10827	25746	24359	9449	9449	9554	10045	8631	8189	4977
1980	5852	6327	6750	30364	66139	33239	11530	11530	9836	3008	8379	7966	4933
1981	5990	6468	6271	16443	21431	19135	7153	7154	7863	6928	8742	8227	4921
1982	5904	9997	42294	39405	58982	60345	64807	64807	32017	6964	8716	8248	4817
1983	6428	25993	48816	55953	78838	77113	60485	60484	49244	39951	8737	8269	13405
1984	19107	58419	76964	42334	30677	28248	11642	11643	11804	9027	8805	8259	5011
1985	4348	17376	9157	9480	12897	12183	5856	5855	10122	6682	8753	8195	4873
1986	5967	6098	5459	6857	66604	66277	12427	12427	8512	2181	8759	8313	4866
1987	5988	6477	6342	9877	17914	22293	8021	8021	7812	7356	8607	8213	4943
1988	5951	6286	5719	12513	11087	7993	5249	5248	6101	7950	8846	8215	4926
1989	4776	5143	4940	3952	7454	37186	13016	13016	9908	6788	8849	8243	4767
1990	5943	6397	6428	4951	9417	6607	7889	7889	4168	8208	8763	8201	4921
1991	4754	5299	5173	4399	7156	17164	9085	9086	4448	6757	8727	8140	4943
Avg	6453	11465	15418	18754	29435	29194	16414	16414	12290	8854	8696	8154	5424

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	5630	5306	5248	5638	11943	8988	4254	4255	4289	5802	3755	3728	3569
1977	3655	4099	4062	3231	5482	4959	4666	4667	4833	5706	3754	3667	3573
1978	3589	4083	4326	53726	39087	51402	22715	22705	11106	2891	4026	3837	3834
1979	4845	5225	5276	10917	24357	21692	7983	7980	7629	7849	3923	3780	3717
1980	4767	5220	6929	59034	104818	44596	9689	9682	8248	2223	4189	3931	3810
1981	4867	5158	5260	14791	19155	16766	5775	5777	6045	5112	3890	3736	3686
1982	4653	11707	61237	57245	75415	60678	95238	95235	28487	5536	4220	4106	3943
1983	5562	24853	54722	72544	131060	184314	69962	69963	47075	36186	5241	4228	11268
1984	16293	58055	116711	52914	28174	25364	9758	9756	9410	7020	4032	3869	3804
1985	4773	16195	7905	8204	11130	10534	4680	4682	7923	4896	3877	3725	3650
1986	4631	5174	5350	6466	150613	115358	11564	11564	6921	1244	4010	3895	3771
1987	4795	5122	5266	8408	15639	19875	6441	6442	5906	5323	3742	3662	3602
1988	4567	5013	5291	12464	9165	6324	4067	4068	4527	5754	3714	3667	3572
1989	3580	4108	4110	3337	6057	33760	10817	10818	7736	4992	3828	3673	3652
1990	4622	5013	5030	4712	8771	5266	6324	6325	3085	5867	3702	3668	3596
1991	3578	4017	4019	3549	5764	15945	7382	7382	3314	5006	3714	3653	3586
Avg	5275	10522	18796	23574	40396	39114	17582	17581	10408	6963	3976	3802	4165

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Three Mile Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1158	-1468	-1427	-1415	-1479	-1472	-1258	-1250	-1337	-1616	-1116	-1130	-1552
1977	-1272	-1329	-1416	-1390	-1463	-1479	-1339	-1335	-1333	-1549	-1101	-1122	-1582
1978	-1528	-1473	-1454	-1635	-950	-555	773	774	160	-453	-850	-1043	-1428
1979	-1154	-1390	-1468	-935	-451	-604	-610	-592	-778	-1365	-1012	-1015	-1465
1980	-1335	-1504	-1436	-721	-457	-258	-506	-486	-211	-524	-624	-913	-1289
1981	-1039	-1384	-1457	-1426	-1545	-1345	-1172	-1162	-1308	-1650	-1139	-1125	-1533
1982	-1425	-1598	-2615	-893	-24	527	2319	2319	1289	-166	-648	-743	-729
1983	-448	-423	1128	1887	2217	-167	1044	1044	1980	3829	1077	-629	-593
1984	-784	113	4	-242	-432	-968	-967	-952	-1172	-1359	-962	-943	-1412
1985	-1438	-1521	-1401	-1382	-1265	-1305	-1122	-1113	-1355	-1629	-1123	-1119	-1513
1986	-1420	-1445	-1450	-1234	-322	342	135	135	38	-317	-937	-931	-1385
1987	-1205	-1434	-1474	-1412	-1503	-1501	-1301	-1294	-1418	-1598	-1110	-1118	-1535
1988	-1394	-1427	-1526	-1578	-1503	-1485	-1262	-1255	-1343	-1568	-1117	-1118	-1554
1989	-1518	-1486	-1479	-1432	-1411	-1833	-1384	-1376	-1320	-1683	-1133	-1147	-1519
1990	-1514	-1489	-1526	-1489	-1472	-1462	-1232	-1223	-1184	-1580	-1120	-1130	-1537
1991	-1502	-1496	-1500	-1442	-1455	-1441	-1230	-1220	-1208	-1540	-1125	-1133	-1573
Avg	-1258	-1297	-1281	-1046	-845	-938	-570	-562	-659	-923	-878	-1022	-1387

Georgiana Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	919	973	989	1094	2182	1758	893	892	1115	1161	1201	1124	938
1977	873	994	1007	789	1386	1273	1141	1141	1133	1477	1210	1173	994
1978	988	1020	721	4497	3854	4036	2733	2732	1785	451	1131	1132	765
1979	891	1017	966	1520	3009	2897	1258	1262	1497	1406	1150	1152	887
1980	936	1009	1023	3482	6558	3605	1596	1604	1369	314	1099	1136	783
1981	863	1116	961	2380	2806	2587	1055	1053	1342	1013	1163	1165	918
1982	1056	1519	4573	4203	5830	5927	6231	6231	3289	732	1115	1088	599
1983	759	3006	4827	5465	7581	7684	5898	5898	4778	3765	886	1071	1803
1984	2525	5748	7473	4369	3371	3236	1623	1624	1868	1241	1142	1150	806
1985	720	2412	1325	1563	1999	1897	872	869	1681	979	1169	1164	936
1986	1102	1102	854	1011	6692	6530	1553	1554	1126	171	1162	1160	804
1987	918	1138	953	1651	2538	2868	1273	1272	1359	1257	1195	1192	978
1988	1148	1225	885	1899	1956	1511	935	934	1155	1478	1234	1184	1008
1989	983	971	926	738	1470	4035	1905	1904	1639	1000	1177	1183	886
1990	1095	1234	1197	799	1705	1207	1332	1331	777	1522	1228	1190	986
1991	977	1084	1047	905	1425	2393	1464	1464	802	1310	1227	1182	1008
Avg	1047	1598	1858	2273	3398	3340	1985	1985	1670	1205	1156	1153	944

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

North Mokelumne River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	314	263	215	219	240	219	79	88	16	-13	2362	2043	17
1977	72	71	66	90	1	-22	78	83	30	-38	2315	2223	25
1978	63	122	260	1798	1250	1529	1474	1474	342	39	2229	2221	23
1979	78	120	67	690	1530	1164	612	631	298	-21	2294	2229	30
1980	47	111	230	2500	3360	1432	717	736	1026	816	2489	2497	531
1981	192	193	230	436	298	925	308	320	90	-25	2338	2261	33
1982	96	538	949	3518	5003	4085	8671	8671	2691	1068	2674	2598	830
1983	392	1669	4957	5599	8217	11238	3390	3390	4798	2959	2505	2821	1091
1984	354	3746	6646	2409	2003	1181	715	730	643	409	2483	2399	283
1985	210	688	383	283	605	528	393	404	76	-32	2348	2258	31
1986	107	260	300	650	11090	5119	1182	1182	973	725	2575	2502	427
1987	138	198	217	218	361	638	67	77	-3	-32	2341	2246	19
1988	75	181	272	321	131	43	24	32	-13	-46	2401	2258	29
1989	32	124	142	102	141	828	161	172	126	77	2364	2258	49
1990	37	57	23	163	210	235	95	105	79	-56	2386	2244	33
1991	35	16	65	61	124	751	55	66	33	-34	2371	2248	0
Avg	140	522	939	1191	2160	1868	1126	1135	700	362	2405	2332	216

South Mokelumne River @ New Hope

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	95	107	95	95	147	131	33	24	12	21	576	506	21
1977	9	18	34	27	21	13	51	44	15	23	572	550	28
1978	33	53	99	775	524	575	480	480	62	-65	505	518	8
1979	5	41	33	259	583	463	216	197	78	11	539	538	21
1980	1	46	97	907	1255	531	263	243	362	263	711	753	216
1981	32	78	101	224	186	422	127	116	48	14	558	555	27
1982	38	238	514	1349	1883	1533	2994	2994	936	349	799	790	288
1983	85	634	1793	1965	2826	3727	1243	1243	1716	889	692	922	423
1984	120	1445	2417	916	787	514	299	284	269	186	656	651	120
1985	71	321	165	135	278	242	156	145	56	8	562	555	25
1986	45	110	120	245	3704	1837	395	395	316	206	723	716	178
1987	29	87	97	113	201	319	47	38	20	20	573	557	24
1988	34	84	112	159	99	49	12	4	2	25	593	557	31
1989	21	54	65	33	78	446	111	100	74	62	566	557	29
1990	25	36	29	64	112	116	57	47	8	25	590	557	30
1991	22	15	39	24	73	346	40	29	-6	23	585	558	21
Avg	41	210	363	456	797	704	408	399	248	129	613	615	93

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Mokelumne River @ Andrus Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1464	1359	1305	1416	2382	1978	1125	1167	1277	1235	3299	2922	1047
1977	1147	1224	1173	1038	1447	1309	1323	1356	1302	1481	3269	3132	1092
1978	1158	1264	1128	6161	5098	5737	4659	4658	2555	951	3200	3122	941
1979	1227	1284	1140	2421	4727	4156	2134	2236	2085	1511	3230	3151	1039
1980	1176	1245	1373	6223	9937	5226	2558	2673	2715	1534	3490	3436	1461
1981	1341	1435	1290	2781	3013	3447	1514	1567	1554	1087	3252	3164	1049
1982	1284	2101	5166	7682	10614	9945	14949	14950	6365	2242	3675	3539	1727
1983	1538	4795	9890	11408	16091	19246	9399	9399	9817	7698	3827	3773	3080
1984	3087	9268	13876	6818	5396	4368	2459	2535	2620	1762	3424	3337	1222
1985	1099	3057	1812	1910	2623	2472	1441	1493	1836	1053	3267	3161	1065
1986	1336	1467	1286	1855	17743	11795	3134	3134	2515	1379	3537	3449	1352
1987	1280	1437	1266	1918	2836	3418	1443	1489	1451	1287	3275	3169	1086
1988	1341	1489	1256	2251	2058	1579	1109	1149	1274	1464	3362	3172	1117
1989	1118	1201	1159	992	1664	4549	2086	2134	1852	1153	3284	3168	1037
1990	1225	1367	1275	1101	1951	1502	1533	1581	1078	1485	3342	3163	1107
1991	1118	1193	1188	1092	1596	3097	1619	1674	1054	1330	3323	3158	1087
Avg	1371	2199	2849	3567	5574	5239	3280	3325	2584	1791	3379	3251	1282

Little Potato Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-99	21	29	67	251	168	-92	-135	-77	23	928	785	-28
1977	-148	-101	-30	-36	37	-8	-22	-55	-86	57	918	863	-8
1978	-32	-22	24	1338	728	686	129	129	-337	-460	768	801	-110
1979	-224	-70	-39	233	705	470	-4	-101	-184	-43	853	820	-60
1980	-152	-37	28	973	1515	392	53	-54	72	-96	902	1002	108
1981	-213	-7	39	354	368	594	9	-45	-44	-8	914	871	-34
1982	-57	249	1028	1756	2232	1915	3008	3008	583	-31	1014	988	27
1983	-267	672	1849	2018	2846	3764	1228	1228	1506	-30	357	1094	272
1984	-48	1752	2947	958	844	610	207	132	198	142	960	917	30
1985	-62	460	184	172	345	323	9	-46	12	-25	914	869	-39
1986	-43	45	56	247	4346	1914	-44	44	-69	-219	1026	983	90
1987	-156	22	35	169	376	552	-31	-77	-40	26	919	873	-26
1988	-41	40	82	308	193	71	-109	-150	-97	51	964	878	-7
1989	-40	-14	9	-30	107	869	119	69	17	40	916	878	-33
1990	-26	2	14	15	197	100	-23	-73	-179	51	955	879	-15
1991	-47	-42	1	-23	101	508	-27	-83	-197	12	945	878	-18
Avg	-103	186	391	532	949	808	281	237	67	-32	891	899	9

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3839	1806	602	495	630	627	676	2136	1589	210	101	183	333
1977	2784	2173	476	383	372	426	514	1650	1667	167	161	164	251
1978	1159	1369	432	1102	2939	4773	6826	6826	5598	3284	855	485	814
1979	4265	2294	625	1488	3132	3263	2452	6266	6981	992	433	436	574
1980	2893	1742	685	4927	8266	5868	2817	7054	3490	3164	1159	498	759
1981	4658	2047	541	711	797	785	889	2791	2151	363	164	202	405
1982	1996	1665	666	2700	6079	6042	12366	12366	8085	4274	1011	858	2250
1983	3468	3505	7696	10155	16417	19204	9184	9184	9854	17186	6269	1006	2983
1984	7709	5646	9041	5622	3533	2443	1455	4245	4463	746	460	503	637
1985	1999	1930	620	560	823	724	899	2830	2329	368	181	206	423
1986	1988	1547	487	665	10655	11226	4536	4536	4123	3671	436	479	576
1987	3571	1681	529	507	606	697	728	2310	1708	199	145	181	372
1988	1807	1373	358	361	387	398	647	2056	1689	169	32	143	260
1989	1119	1244	367	357	377	479	802	2545	2352	163	198	189	390
1990	1315	1280	339	361	394	407	795	2519	2303	163	66	121	324
1991	1179	1202	323	329	336	696	922	2893	2495	171	86	123	297
Avg	2859	2032	1487	1920	3484	3629	2907	4513	3805	2206	735	361	728

SJR near Stockton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3846	1810	606	519	650	649	685	2145	1618	245	134	197	342
1977	2795	2178	483	420	396	443	536	1671	1679	202	194	184	262
1978	1170	1375	477	1247	3022	4886	6873	6873	5619	3321	891	508	827
1979	4276	2297	631	1572	3228	3303	2467	6281	7002	1030	466	457	588
1980	2899	1749	701	5037	8387	5880	2829	7067	3506	3197	1189	520	772
1981	4670	2052	547	787	822	843	902	2804	2169	402	201	226	418
1982	2003	1679	703	2846	6135	6218	12397	12397	8104	4303	1044	880	2256
1983	3473	3580	7759	10307	16541	19370	9216	9216	9870	17221	6303	1030	2992
1984	7719	5694	9136	5648	3561	2453	1468	4258	4485	781	496	527	651
1985	2004	1971	651	592	849	756	914	2844	2352	406	216	227	434
1986	1996	1564	536	730	10854	11333	4552	4552	4142	3707	471	503	584
1987	3582	1686	535	552	667	742	744	2326	1734	233	176	203	387
1988	1817	1384	376	424	402	417	662	2070	1704	202	70	165	274
1989	1130	1251	381	385	405	539	818	2562	2375	196	234	210	398
1990	1325	1293	346	392	438	424	810	2534	2316	202	101	144	338
1991	1189	1207	329	356	359	787	935	2906	2514	204	121	145	313
Avg	2868	2048	1512	1988	3545	3690	2926	4532	3824	2241	769	383	740

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

SJR @ Rindge Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3138	1424	551	487	610	582	705	1797	1355	268	54	95	256
1977	2242	1744	428	398	348	376	534	1381	1393	215	108	77	170
1978	874	1058	435	1338	2927	4746	6658	6658	5299	3204	811	395	742
1979	3490	1837	574	1577	3117	3133	2406	5333	5762	1035	382	353	509
1980	2332	1376	654	4870	8097	5588	2743	6004	3361	2928	1113	415	695
1981	3838	1630	490	781	800	838	925	2351	1798	359	105	112	334
1982	1576	1318	646	2850	5841	6054	11820	11821	7736	3991	972	788	2101
1983	3263	3433	7421	9970	15608	18058	8877	8877	9419	16109	5995	938	2782
1984	6444	5392	8723	5376	3374	2305	1473	3586	3586	786	411	424	570
1985	1579	1591	612	574	824	731	935	2384	1931	373	121	114	349
1986	1568	1223	505	742	10438	10833	4405	4405	3981	3439	383	398	505
1987	2908	1320	476	534	658	726	757	1941	1414	233	88	91	300
1988	1428	1075	321	421	356	357	681	1734	1408	199	-7	62	194
1989	843	958	319	359	373	526	824	2131	1961	176	140	88	321
1990	1010	995	285	364	422	359	824	2115	1941	197	16	38	257
1991	892	917	261	318	313	781	947	2426	2091	207	31	36	223
Avg	2339	1706	1419	1935	3382	3500	2845	4059	3402	2107	670	277	644

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	5019	3315	3504	3623	5170	4326	4018	4013	3490	2909	4232	4035	2238
1977	3589	3432	3001	2874	3111	2893	3592	3591	3619	2933	4229	4082	2064
1978	2319	2768	3084	13431	13943	18658	19889	19870	13634	8173	5744	4663	3222
1979	4727	3600	3366	7789	13534	12176	8672	8679	7343	4904	4872	4750	2823
1980	3858	3169	4051	19687	31565	18783	9817	9840	10807	7425	6973	5308	3834
1981	5317	3525	3360	6229	6664	7178	5032	5023	4207	2534	4195	4139	2423
1982	3260	4425	10074	18177	26523	26156	43232	43238	23387	10379	6904	6358	6932
1983	8929	13965	28075	35876	52864	65401	30889	30882	31000	38643	16237	7011	9835
1984	10057	23411	37236	20546	14466	11082	7497	7497	5972	4668	5204	5162	3213
1985	3110	6088	4524	4533	6018	5670	4921	4921	4545	2586	4264	4161	2494
1986	3247	3299	3502	5019	47736	38556	13693	13691	11688	8243	5279	5224	3289
1987	4417	3248	3299	4413	6014	7018	4490	4490	3586	2678	4223	4103	2336
1988	3205	3162	2980	4795	4047	3286	3874	3877	3517	2862	4144	4110	2207
1989	2257	2637	2695	2744	3559	7966	5478	5472	4681	2337	4210	3983	2499
1990	2648	2857	2735	2981	4039	3127	4729	4725	3928	2835	4115	4042	2322
1991	2336	2513	2519	2680	3239	6494	5124	5121	3889	2774	4088	4023	2119
Avg	4268	5338	7375	9712	15156	14923	10934	10933	8706	6680	5557	4697	3366

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Old River @ Head

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0	0	1437	1172	1484	1505	1459	0	0	481	391	557	884
1977	0	0	1150	917	909	1046	1135	0	0	398	532	525	699
1978	0	0	1041	2410	4442	6768	9317	9317	7899	4853	2075	1257	1949
1979	0	0	1489	2899	4687	4863	3813	0	0	2151	1145	1138	1429
1980	0	0	1617	6976	10959	8182	4237	0	5112	4816	2596	1278	1827
1981	0	0	1297	1651	1850	1832	1902	0	0	905	541	615	1051
1982	0	0	1538	4146	8405	8342	15404	15403	10814	6242	2365	2060	3691
1983	5142	5162	10343	13034	19453	22062	11999	11999	12770	20290	8711	2346	4526
1984	0	7887	11841	7861	5201	3898	2790	0	0	1640	1208	1292	1565
1985	0	0	1464	1314	1920	1696	1930	0	0	894	577	620	1086
1986	0	0	1167	1551	13570	14218	6465	6465	5943	5457	1154	1241	1420
1987	0	0	1270	1193	1414	1625	1582	0	0	463	490	569	981
1988	0	0	879	862	935	975	1409	0	0	400	238	477	722
1989	0	0	903	860	909	1148	1744	0	0	401	620	586	1002
1990	0	0	840	870	964	1006	1724	0	0	391	315	429	867
1991	0	0	807	801	824	1669	1971	0	0	403	362	433	814
Avg	321	816	2443	3032	4870	5052	4305	2699	2659	3137	1458	964	1532

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	21	21	240	194	252	264	249	29	40	88	84	99	150
1977	23	20	187	150	148	176	197	38	28	78	110	99	118
1978	26	20	167	425	693	984	1337	1337	1130	755	386	230	347
1979	27	19	250	492	720	737	613	23	44	393	215	206	255
1980	22	20	274	1014	1661	1170	670	25	780	749	464	233	327
1981	27	21	213	285	324	320	333	30	36	170	108	114	184
1982	22	18	260	664	1223	1216	2489	2489	1597	918	432	375	593
1983	771	775	1526	2079	3332	3915	1820	1819	1959	3428	1252	422	705
1984	24	1137	1815	1133	785	625	479	26	44	297	228	236	280
1985	21	18	246	223	336	294	341	34	42	167	113	113	188
1986	24	19	189	266	2171	2276	935	935	877	828	218	228	248
1987	26	21	209	201	240	284	279	37	43	87	99	108	173
1988	25	20	136	139	151	160	242	31	35	78	61	91	126
1989	27	19	142	140	147	186	311	39	42	78	126	109	168
1990	23	20	131	141	155	168	306	37	23	79	73	82	151
1991	26	21	125	129	131	284	344	28	34	77	81	82	144
Avg	71	137	382	480	779	816	684	435	422	517	253	177	260

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Old River near DMC intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	19	18	238	200	253	235	207	-13	-29	7	-6	55	130
1977	16	19	186	153	142	155	129	-30	-14	-20	16	36	97
1978	13	20	173	462	727	1052	1335	1335	1068	654	300	169	319
1979	11	20	249	511	732	742	583	-6	-18	296	134	151	220
1980	19	20	278	1039	1718	1171	634	-11	725	654	393	177	295
1981	12	19	214	295	324	320	286	-17	-26	74	21	52	154
1982	19	25	271	722	1227	1284	2494	2494	1541	838	350	318	587
1983	769	807	1554	2198	3399	4041	1822	1821	1910	3330	1172	365	683
1984	14	1152	1872	1135	788	621	443	-9	-17	210	143	177	247
1985	20	32	251	225	336	291	282	-25	-35	67	30	57	166
1986	16	22	196	275	2294	2336	915	914	817	724	133	163	231
1987	12	16	208	204	248	280	211	-31	-32	-1	16	39	136
1988	14	20	142	149	151	150	187	-24	-24	-18	-40	27	92
1989	11	20	144	141	148	184	232	-40	-34	-18	29	46	159
1990	17	19	130	143	154	145	236	-32	-5	-25	-23	19	120
1991	14	17	125	130	130	268	299	-17	-20	-15	-14	21	105
Avg	62	140	389	499	798	830	643	394	363	422	166	117	234

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-694	-690	267	148	321	280	871	-96	-134	187	-583	-402	-147
1977	-712	-688	81	-12	-65	-8	623	-133	-89	108	-493	-454	-269
1978	-720	-684	42	1072	2332	3898	5965	5970	4212	2965	524	25	541
1979	-722	-681	306	1339	2441	2493	2412	-64	-1216	1237	-81	-44	185
1980	-700	-684	404	3942	6555	4621	2677	-61	3151	1930	880	46	452
1981	-723	-688	182	480	577	558	1154	-99	-129	113	-486	-399	-52
1982	-698	-670	352	2237	4773	4901	9780	9783	6563	2875	717	556	1706
1983	2650	2764	6050	8107	11720	13399	7694	7692	7965	11543	4794	743	2209
1984	-714	4440	7006	4442	2736	1871	1750	-70	-1339	923	-45	51	277
1985	-695	-641	313	246	613	464	1157	-114	-284	189	-455	-384	-16
1986	-711	-675	123	416	8242	8554	4124	4124	3724	2454	-80	6	213
1987	-719	-693	162	171	309	423	910	-135	-268	166	-499	-433	-110
1988	-714	-686	-80	-35	-33	-39	818	-115	-117	120	-696	-488	-278
1989	-724	-685	-71	-55	-37	76	1001	-149	-196	52	-435	-410	-44
1990	-705	-686	-119	-47	-42	-40	1001	-135	-49	96	-638	-519	-178
1991	-718	-692	-140	-102	-105	400	1206	-90	-103	126	-605	-512	-224
Avg	-501	-146	930	1397	2521	2616	2696	1644	1356	1568	114	-164	267

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Old River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-375	-401	239	171	286	243	580	-68	-88	144	-345	-225	-30
1977	-398	-405	102	70	28	49	419	-90	-45	86	-267	-253	-115
1978	-421	-398	102	901	1751	2849	4212	4215	2995	2064	439	97	453
1979	-380	-389	267	1021	1794	1814	1665	-2	-718	870	7	34	188
1980	-386	-394	336	2866	4767	3300	1856	9	2201	1430	666	96	373
1981	-392	-393	180	409	469	455	773	-65	-77	120	-268	-210	29
1982	-393	-383	310	1758	3441	3573	6977	6979	4639	2108	554	444	1252
1983	1920	2022	4384	5933	8630	9976	5468	5467	5640	8482	3429	572	1605
1984	-360	3193	5064	3195	1986	1357	1195	-25	-808	657	32	100	252
1985	-391	-343	284	248	489	386	776	-74	-175	165	-248	-198	55
1986	-404	-394	154	374	6018	6189	2883	2883	2595	1789	9	66	214
1987	-399	-403	166	198	294	363	598	-101	-172	147	-269	-234	-12
1988	-420	-411	0	63	41	25	538	-87	-71	92	-423	-280	-142
1989	-425	-400	7	38	47	131	677	-92	-123	70	-209	-196	48
1990	-405	-397	21	43	41	31	660	-101	-11	66	-372	-301	-67
1991	-425	-406	38	3	1	362	832	-35	-53	93	-344	-291	-88
Avg	-253	-19	721	1081	1880	1944	1882	1176	984	1149	149	-49	251

Old River near Franks Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-2787	-2490	-2072	-2109	-2356	-2284	-1872	-2311	-2328	-2131	-2898	-2708	-2085
1977	-2558	-2447	-2018	-2009	-2145	-2109	-2012	-2357	-2328	-2189	-2907	-2820	-2112
1978	-2356	-2393	-2080	-3488	-3053	-3138	-2552	-2551	-2195	-1813	-2798	-2827	-2028
1979	-2839	-2519	-2025	-2286	-2955	-2774	-2054	-3184	-3520	-2127	-2848	-2790	-2052
1980	-2596	-2455	-2095	-3348	-4211	-2905	-2172	-3428	-2253	-2205	-2805	-2876	-2145
1981	-2883	-2531	-2077	-2463	-2513	-2661	-1963	-2531	-2493	-2160	-2921	-2852	-2080
1982	-2497	-2703	-3308	-3835	-4565	-4315	-5417	-5416	-3093	-2344	-2888	-2849	-2124
1983	-1987	-2939	-4189	-4454	-5784	-6735	-3802	-3802	-4015	-3378	-2615	-2906	-2503
1984	-3809	-4144	-5461	-3406	-3094	-2853	-2188	-3017	-3387	-2235	-2914	-2844	-2107
1985	-2431	-2989	-2229	-2235	-2393	-2382	-1943	-2520	-2637	-2136	-2915	-2844	-2070
1986	-2519	-2476	-2108	-2247	-6629	-4698	-2225	-2226	-2147	-2109	-2949	-2889	-2130
1987	-2714	-2480	-2075	-2247	-2500	-2680	-1974	-2449	-2435	-2173	-2907	-2845	-2097
1988	-2438	-2414	-2099	-2398	-2301	-2171	-1872	-2296	-2334	-2177	-2927	-2830	-2089
1989	-2315	-2346	-2063	-2008	-2185	-3075	-2179	-2701	-2625	-2176	-2962	-2891	-2056
1990	-2368	-2396	-2102	-2051	-2302	-2182	-1981	-2497	-2329	-2188	-2934	-2832	-2087
1991	-2313	-2336	-2081	-2042	-2193	-2604	-2012	-2601	-2384	-2126	-2940	-2836	-2117
Avg	-2588	-2629	-2505	-2664	-3199	-3098	-2389	-2868	-2656	-2229	-2883	-2840	-2118

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow
 (Values in cubic feet per second)

Alternative 3E

Middle River @ Undine Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1	0	71	55	73	71	76	5	1	17	9	21	41
1977	0	0	55	41	40	47	55	2	5	12	16	18	30
1978	-1	0	49	131	297	506	731	731	588	329	99	57	98
1979	-1	1	74	162	318	332	243	6	-10	112	49	51	69
1980	1	0	81	524	902	626	281	6	356	312	132	59	91
1981	-1	0	63	83	94	93	103	5	2	38	16	23	49
1982	1	1	80	271	655	1369	1369	869	440	117	102	224	
1983	854	362	834	116	1837	2167	1003	1003	1073	1904	661	118	298
1984	0	605	992	600	364	245	161	6	-11	82	52	59	76
1985	1	1	72	63	97	85	104	4	0	38	18	23	51
1986	0	1	56	77	1180	1238	477	477	428	370	49	56	70
1987	-1	0	62	56	69	79	82	2	0	16	14	20	44
1988	0	0	40	39	43	44	73	4	3	12	0	15	31
1989	-1	0	41	38	41	54	91	2	1	12	20	21	48
1990	0	0	38	39	43	44	90	3	7	11	4	13	39
1991	-1	0	36	35	36	81	107	5	3	12	7	13	35
Avg	22	61	165	208	381	398	315	227	207	232	79	42	81

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1	1	71	67	80	82	81	9	14	34	25	27	43
1977	2	1	56	57	50	55	63	10	9	28	32	28	34
1978	2	1	55	164	318	542	739	739	596	347	116	67	102
1979	3	1	74	187	336	344	248	11	-1	131	65	60	74
1980	2	1	84	554	939	630	285	11	364	328	147	68	95
1981	3	1	63	99	105	105	107	10	11	57	34	33	53
1982	2	2	85	309	670	697	1377	1377	878	454	133	111	225
1983	354	375	845	1182	1873	2231	1010	1010	1080	1921	677	128	301
1984	3	610	1010	614	376	250	166	11	-1	99	69	69	81
1985	1	7	79	79	107	95	108	9	11	56	35	33	54
1986	2	2	63	94	1231	1269	482	482	436	388	66	66	72
1987	3	1	62	73	86	97	88	9	12	33	30	30	50
1988	2	1	43	56	50	51	76	8	10	28	18	26	36
1989	3	1	43	53	54	65	97	8	12	29	38	31	48
1990	2	2	40	53	54	52	96	9	10	30	22	23	44
1991	2	0	36	47	44	95	111	9	11	28	24	23	41
Avg	24	63	169	231	398	416	321	233	216	249	96	51	85

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Middle River @ Victoria Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-324	-337	147	96	185	161	424	-65	-82	67	-259	-177	-48
1977	-333	-331	52	18	-17	7	289	-87	-66	25	-215	-203	-111
1978	-335	-332	35	638	1312	2209	3294	3297	2366	1590	313	42	308
1979	-342	-332	167	748	1366	1381	1274	-47	-556	626	-1	10	128
1980	-327	-332	222	2235	3767	2579	1425	-46	1693	1116	504	57	267
1981	-338	-334	102	281	327	318	576	-68	-84	60	-212	-175	3
1982	-325	-324	210	1294	2706	2806	5614	5615	3658	1641	418	325	942
1983	1472	1538	3422	4681	7106	8397	4328	4325	4469	6954	2694	425	1229
1984	-332	2493	4025	2495	1524	1028	906	-51	-608	456	19	61	175
1985	-325	-304	179	154	343	263	580	-74	-154	89	-197	-169	22
1986	-331	-327	80	249	4830	4948	2244	2244	2011	1398	0	37	140
1987	-337	-337	92	116	192	249	447	-85	-147	52	-220	-193	26
1988	-329	-331	-33	11	-1	-7	395	-76	-79	30	-315	-218	-111
1989	-337	-332	-30	-6	4	69	495	-94	-115	-5	-189	-185	5
1990	-328	-331	-53	-3	0	-9	496	-86	-43	19	-288	-235	-60
1991	-334	-337	-67	-35	-39	241	602	-66	-73	33	-273	-232	-86
Avg	-219	-37	534	811	1475	1540	1462	915	762	884	111	-52	174

Middle River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-647	-618	105	45	169	91	542	-184	-248	-21	-563	-427	-244
1977	-665	-592	-11	-61	-127	-115	303	-260	-222	-85	-527	-494	-338
1978	-656	-608	-50	845	1742	2941	4405	4409	3024	2046	186	-197	225
1979	-724	-613	130	974	1791	1774	1712	-188	-1097	701	-229	-207	3
1980	-649	-608	215	2942	5019	3406	1916	-192	2210	1262	492	-141	198
1981	-690	-616	43	303	373	354	748	-201	-270	-124	-533	-476	-176
1982	-638	-598	174	1778	3539	3720	7381	7384	4795	1972	368	239	1150
1983	1882	2017	4546	6237	9096	10570	5794	5792	5862	8722	3451	378	1517
1984	-707	3262	5269	3284	1992	1316	1207	-184	-1159	479	-204	-138	60
1985	-632	-561	158	130	393	283	752	-211	-391	-70	-508	-462	-146
1986	-652	-594	19	269	6356	6487	3017	3017	2636	1654	-228	-175	26
1987	-677	-617	28	75	182	255	557	-231	-372	-77	-531	-494	-221
1988	-622	-584	-137	-73	-94	-114	497	-204	-250	-86	-645	-512	-313
1989	-652	-604	-143	-95	-84	-6	606	-263	-328	-179	-524	-516	-151
1990	-631	-602	-176	-92	-96	-136	627	-233	-170	-107	-622	-535	-250
1991	-642	-613	-203	-144	-156	227	759	-224	-250	-73	-612	-537	-311
Avg	-500	-197	623	1026	1881	1941	1926	1127	861	1001	-77	-293	64

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1247	-1546	-1345	-1373	-1282	-1350	-1078	-1237	-1363	-1487	-1659	-1593	-1596
1977	-1418	-1461	-1422	-1445	-1501	-1504	-1256	-1373	-1357	-1530	-1645	-1640	-1662
1978	-1672	-1620	-1454	-662	48	1038	2099	2101	1104	159	-1169	-1464	-1281
1979	-1260	-1472	-1335	-622	132	67	-106	-620	-1027	-986	-1446	-1449	-1420
1980	-1407	-1563	-1273	1077	2844	1383	55	-518	307	-271	-913	-1388	-1264
1981	-1156	-1507	-1389	-1160	-1129	-1105	-919	-1144	-1308	-1537	-1657	-1636	-1545
1982	-1532	-1552	-1258	182	1631	1794	4847	4849	2520	305	-1000	-1117	-477
1983	-117	280	2447	3894	6560	8027	3326	3325	3445	6200	1538	-1007	-149
1984	-723	1346	3169	1314	250	-335	-564	-922	-1430	-1137	-1419	-1393	-1370
1985	-1514	-1452	-1282	-1302	-1105	-1177	-912	-1142	-1342	-1510	-1642	-1629	-1526
1986	-1541	-1573	-1394	-1182	4270	4142	954	954	642	26	-1432	-1413	-1394
1987	-1310	-1562	-1401	-1337	-1249	-1183	-1060	-1237	-1426	-1547	-1655	-1646	-1574
1988	-1519	-1575	-1507	-1421	-1471	-1491	-1106	-1259	-1369	-1542	-1705	-1646	-1624
1989	-1662	-1624	-1522	-1473	-1458	-1358	-1030	-1232	-1306	-1619	-1666	-1684	-1532
1990	-1619	-1616	-1547	-1470	-1447	-1510	-1007	-1205	-1229	-1552	-1702	-1663	-1586
1991	-1645	-1640	-1571	-1514	-1520	-1194	-935	-1170	-1252	-1534	-1704	-1669	-1638
Avg	-1319	-1259	-880	-531	223	265	82	-114	-399	-598	-1305	-1502	-1352

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-30	-29	1118	944	1166	1153	1096	-72	-90	324	240	402	673
1977	-35	-27	902	754	725	811	827	-96	-72	242	344	362	532
1978	-37	-26	834	1920	3498	5387	7244	7245	6132	3692	1526	922	1482
1979	-40	-25	1160	2304	3681	3808	2927	-58	-86	1574	821	837	1079
1980	-31	-26	1263	5499	8502	6390	3254	-63	3930	3681	1945	943	1384
1981	-39	-27	1015	1313	1447	1431	1427	-74	-89	628	354	431	796
1982	-30	-17	1205	3288	6552	6595	11553	11553	8305	4822	1755	1538	2862
1983	4010	4065	8004	10118	14404	16272	9178	9176	9697	14884	6740	1761	3504
1984	-35	6157	9084	6152	4070	3030	2120	-61	-82	1196	866	951	1185
1985	-30	-3	1153	1055	1497	1324	1437	-86	-106	616	384	440	829
1986	-35	-21	926	1238	10362	10788	5036	5035	4589	4180	825	907	1087
1987	-40	-31	995	967	1130	1276	1164	-97	-98	303	323	391	734
1988	-37	-27	702	718	748	765	1040	-90	-87	246	114	325	539
1989	-41	-27	716	706	736	885	1271	-112	-101	246	411	410	772
1990	-33	-27	667	715	761	774	1268	-100	-56	233	177	288	652
1991	-37	-31	640	657	665	1253	1476	-77	-79	251	214	293	605
Avg	218	617	1899	2397	3747	3871	3270	2001	1982	2320	1065	700	1170

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Victoria Canal

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	329	340	-73	-16	-95	-69	-336	81	111	-11	306	212	96
1977	340	336	7	58	78	55	-216	107	82	25	269	243	151
1978	343	336	30	-421	-963	-1625	-2543	-2545	-1757	-1221	-174	38	-200
1979	350	334	-90	-532	-1001	-1022	-1018	66	568	-472	88	63	-47
1980	332	336	-133	-1643	-2778	-1942	-1134	63	-1320	-768	-338	23	-165
1981	347	339	-36	-159	-207	-196	-463	83	107	21	269	222	56
1982	330	329	-117	-926	-2016	-2052	-4226	-4228	-2769	-1169	-264	-201	-713
1983	-1115	-1144	-2554	-3425	-5188	-6094	-3305	-3304	-3379	-5010	-1995	-283	922
1984	340	-1875	-2982	-1866	-1133	-770	-733	68	619	-335	73	22	-86
1985	329	319	-90	-56	-223	-156	-463	90	178	-10	254	214	39
1986	338	331	-6	-129	-3533	-3640	-1755	-1755	-1564	988	87	43	-63
1987	344	340	-27	-23	-83	-134	-350	103	172	3	271	236	83
1988	336	334	80	70	61	65	-313	90	98	19	359	258	154
1989	345	336	76	76	68	16	-390	110	139	56	250	230	47
1990	334	337	98	73	70	70	-392	102	60	33	333	272	110
1991	341	340	106	96	95	-118	-485	81	93	15	320	268	135
Avg	248	104	-357	-551	-1053	-1101	-1133	-674	-535	-613	7	116	-83

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-531	-333	-71	-69	-68	-84	17	-266	-230	-48	-188	-172	-120
1977	-437	-356	-76	-71	-90	-95	-20	-243	-237	-57	-192	-187	-131
1978	-283	-289	-84	-3	-8	48	140	141	-8	50	-132	-171	-84
1979	-586	-375	-68	0	-18	-34	55	-650	-918	0	-163	-163	-98
1980	-443	-324	-59	24	70	25	56	-728	40	-121	-105	-163	-84
1981	-611	-355	-76	-50	-48	-52	31	-333	-293	-97	-195	-191	-115
1982	-360	-325	-100	7	-32	34	17	18	56	-98	-116	-127	-54
1983	-19	-16	17	89	-163	-382	128	128	46	-268	-24	-120	-64
1984	-915	-35	-27	8	-29	-51	51	-472	-704	-21	-165	-160	-96
1985	-358	-350	-68	-59	-46	-56	31	-339	-337	-85	-192	-188	-111
1986	-363	-305	-73	-42	-21	10	104	104	67	-88	-169	-166	-97
1987	-510	-321	-79	-66	-63	-65	12	-294	-273	-64	-191	-191	-120
1988	-335	-283	-92	-79	-90	-93	12	-261	-244	-60	-196	-187	-121
1989	-277	-275	-94	-74	-80	-98	5	-331	-326	-83	-200	-202	-108
1990	-293	-279	-96	-76	-84	-100	17	-314	-282	-62	-199	-189	-118
1991	-281	-272	-101	-85	-95	-63	23	-353	-318	-55	-201	-191	-130
Avg	-413	-281	-72	-34	-54	-66	42	-262	-248	-72	-164	-173	-103

Department of Water Resources, Delta Modeling Section

Table 4-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3E

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-152	236	749	736	725	707	909	355	399	747	374	442	659
1977	35	197	747	730	696	701	822	385	398	725	358	398	639
1978	330	329	720	630	720	773	990	991	800	938	484	433	730
1979	-260	160	763	804	682	711	944	-413	-896	836	428	448	700
1980	34	266	774	690	694	817	943	-556	888	606	527	428	709
1981	-310	190	739	716	741	679	919	215	285	668	364	392	670
1982	187	237	581	587	501	574	562	563	816	616	494	498	761
1983	828	707	610	684	479	434	881	880	720	610	651	499	702
1984	-888	578	385	725	703	721	939	-67	-508	782	414	443	695
1985	188	149	721	729	744	719	919	204	196	690	371	398	679
1986	178	291	728	733	204	590	988	988	933	658	399	424	691
1987	-110	256	738	716	696	671	891	295	327	716	366	388	657
1988	224	327	704	659	688	701	898	362	387	733	346	396	656
1989	336	348	708	728	701	571	861	211	217	691	346	366	687
1990	305	335	701	723	665	681	898	254	315	728	343	392	663
1991	332	355	695	711	682	653	907	179	252	744	339	388	637
Avg	79	310	691	706	645	669	892	303	346	718	413	421	683

Department of Water Resources, Delta Modeling Section

Figure 4-3
Output Locations for Monthly Average Electrical Conductivity

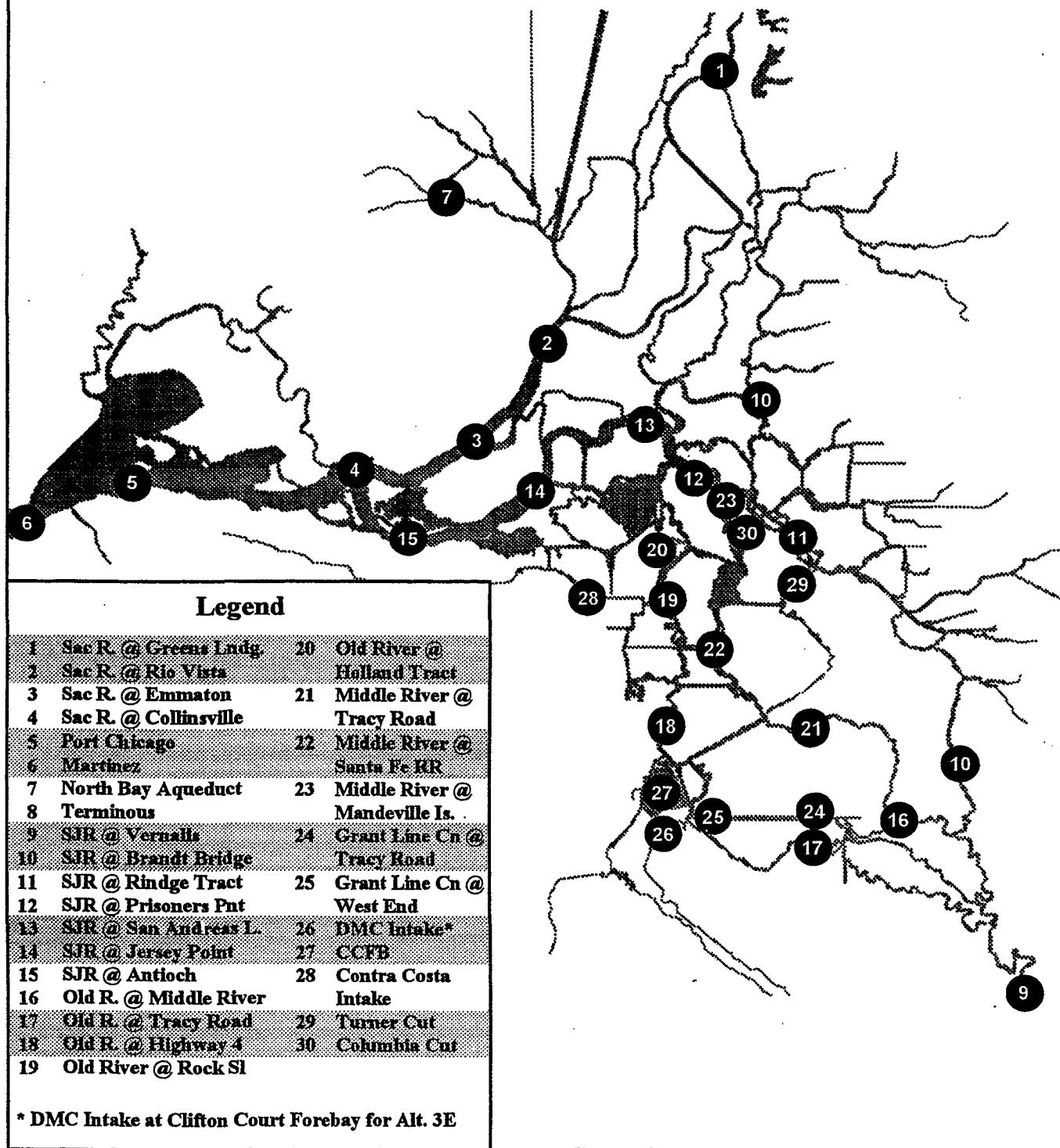


Table4-4
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3E

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	150	150	150	150	150	150	150	151	151	151	151	151
1977	151	150	150	151	151	151	151	151	152	152	151	151
1978	151	150	151	151	151	151	150	151	151	151	151	150
1979	150	150	150	152	152	150	151	151	151	151	151	150
1980	150	150	151	151	151	150	151	151	151	150	150	150
1981	150	150	150	152	151	150	151	151	151	150	150	150
1982	150	151	150	152	150	151	150	150	150	150	150	150
1983	150	151	150	152	151	151	150	150	150	150	150	150
1984	150	150	151	150	150	150	150	150	150	150	151	151
1985	150	153	150	151	150	150	150	150	151	151	151	151
1986	151	152	151	151	151	150	150	151	151	151	151	151
1987	151	150	150	151	150	150	150	151	151	151	151	152
1988	151	150	150	151	150	151	151	151	152	152	151	151
1989	151	150	150	151	151	150	150	151	151	151	151	150
1990	150	150	150	151	151	151	151	152	152	151	151	151
1991	151	150	150	152	151	151	151	151	151	151	150	151
Avg	150	150	150	151	151	150	150	151	151	151	151	151

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	175	174	173	171	154	156	171	191	184	202	195	213
1977	227	215	212	258	199	188	190	188	186	208	200	211
1978	242	229	211	159	156	156	155	159	197	197	184	183
1979	178	173	172	171	167	157	163	166	170	187	178	184
1980	179	174	169	156	156	153	160	164	204	179	169	172
1981	172	173	174	161	158	158	172	172	179	188	180	193
1982	189	158	153	162	153	161	152	154	161	165	165	171
1983	169	159	155	160	156	154	152	152	152	159	164	156
1984	154	152	154	154	154	153	155	156	161	174	176	185
1985	187	163	172	169	158	158	169	161	175	191	188	202
1986	199	186	187	183	154	151	155	160	211	191	182	190
1987	185	180	176	161	154	153	162	169	182	202	200	212
1988	202	187	182	161	158	162	182	194	188	211	201	209
1989	244	247	240	278	197	154	158	167	187	204	193	198
1990	195	189	187	201	172	177	173	217	194	201	186	198
1991	234	247	247	278	208	168	173	206	192	195	184	201
Avg	196	188	185	186	166	160	165	174	183	191	184	192

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3E

Sacramento River @ Emmaton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	617	721	877	770	267	226	565	1047	847	792	804	1275
1977	1662	1577	1648	2211	1493	1199	1172	1036	808	799	828	1303
1978	1862	1648	1278	202	176	170	175	185	262	373	484	801
1979	791	774	877	292	201	182	210	234	249	404	532	883
1980	837	678	437	179	162	159	182	216	318	337	359	597
1981	604	714	873	241	183	187	292	454	691	833	788	1176
1982	1095	304	161	176	182	168	156	156	182	227	273	311
1983	274	180	163	166	158	154	153	154	154	164	204	186
1984	182	160	157	158	161	163	184	196	234	366	452	742
1985	1080	262	259	293	220	210	389	357	576	796	771	1134
1986	1103	792	647	406	164	153	164	195	301	414	450	765
1987	839	898	964	420	189	173	260	485	713	837	831	1220
1988	1399	1199	1090	312	226	410	866	1099	869	852	853	1269
1989	2208	2356	2138	2449	1333	196	197	271	576	840	842	1197
1990	1484	1387	1311	1368	524	640	561	1056	948	843	838	1244
1991	2119	2387	2299	2480	1477	280	280	833	1008	917	861	1307
Avg	1135	1002	949	758	444	292	363	498	546	612	636	963

Sacramento River @ Collinsville

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	2348	2859	3450	3140	946	674	2143	3767	2877	2394	2508	3769
1977	5202	5099	5341	6393	5181	4412	4213	3820	2770	2429	2548	3845
1978	5046	4584	3726	346	215	197	206	205	398	867	1427	2541
1979	2929	3056	3460	813	255	218	278	423	502	1113	1619	2804
1980	2683	2308	1461	242	170	172	199	249	575	757	1042	1937
1981	2274	2834	3462	695	219	222	785	1715	2305	2581	2506	3603
1982	3403	904	179	204	185	184	162	163	206	411	689	771
1983	488	216	182	182	160	154	154	160	161	167	349	237
1984	211	177	161	166	174	178	218	277	511	1051	1382	2378
1985	4022	785	676	979	498	402	1331	1391	1921	2475	2437	3435
1986	3395	2563	2111	1179	180	155	171	217	530	1108	1351	2465
1987	3116	3469	3740	1803	358	200	738	1955	2487	2562	2563	3628
1988	4788	4416	4131	1144	670	1773	3213	3946	2997	2583	2616	3756
1989	6589	6986	6451	6841	4682	409	288	751	1844	2549	2623	3620
1990	5151	4985	4780	4816	2245	2585	2285	3471	3125	2563	2626	3756
1991	6409	7078	6845	7026	5103	790	672	2748	3192	2783	2698	3893
Avg	3628	3270	3135	2248	1328	795	1066	1579	1650	1775	1937	2902

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3E

Port Chicago

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	14570	15217	15843	15449	10354	10004	13512	15931	15317	15162	15533	17383
1977	18086	17725	17905	18786	17565	16884	16456	16117	15340	15306	15522	17477
1978	18616	18097	16982	1799	951	540	1347	2990	7160	10873	13342	15596
1979	15470	15448	15871	9229	2988	2522	5265	7644	9101	12234	13771	16097
1980	15653	15159	13092	931	184	566	3408	4934	9136	10849	12376	14582
1981	14464	15187	15835	8516	4971	4595	9098	12356	14648	15521	15514	17139
1982	16652	10568	961	370	196	197	168	816	4260	7959	10798	11339
1983	9145	2916	242	188	172	158	154	447	375	2688	6976	5929
1984	4308	383	172	329	1615	2138	4715	6923	9462	12225	13322	15439
1985	16888	8405	9452	10659	8689	8109	11570	11862	14132	15341	15391	16992
1986	16681	15555	14654	12127	508	162	2494	4691	8714	12142	13260	15533
1987	15665	15998	16174	13058	7312	4498	8933	12729	14892	15409	15580	17172
1988	17722	17003	16340	10492	9988	13002	15227	16213	15561	15506	15628	17308
1989	19345	19193	18657	18958	16835	3948	5644	9200	13516	15309	15656	17168
1990	18092	17562	17365	17225	13612	14616	13785	15696	15536	15530	15617	17329
1991	19175	19394	19144	19241	17381	8185	9253	14000	15645	15811	15846	17508
Avg	15658	13988	13043	9835	7083	5633	7564	9534	11425	12992	14008	15624

Martinez

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	20375	20932	21306	21007	16430	16093	19055	21281	21663	21717	21839	23606
1977	23414	23021	23181	23920	22681	22238	21691	21527	21548	21698	21812	23722
1978	24638	24234	23140	5028	2950	2436	3627	6705	12532	17261	20011	22015
1979	21093	21077	21356	15096	7120	5889	9817	13065	15806	18869	20423	22499
1980	22154	21897	19865	3641	611	2063	7182	10038	15406	17497	19169	21072
1981	20289	20864	21306	14416	10290	9543	14294	17790	21048	21805	21865	23341
1982	22916	17332	3943	1838	1244	1467	758	2628	8306	13645	17457	18318
1983	16209	7268	1964	924	308	147	1697	3715	2354	5888	12054	12005
1984	9521	2531	457	1745	4537	5426	9429	12927	16253	18883	19993	21889
1985	22395	14207	15183	16400	14780	14094	17144	17585	20626	21599	21794	23284
1986	22959	22006	21223	18950	1054	256	5691	9679	14697	18650	19939	21890
1987	21275	21559	21628	18881	13315	9561	14044	18050	21066	21740	21868	23438
1988	23080	22369	21575	16315	16116	18608	20662	21560	21659	21850	21924	23556
1989	24579	24188	23663	24005	21930	8271	10330	14480	19818	21548	21992	23378
1990	23471	22862	22688	22461	19245	20311	19315	21221	21572	21881	21922	23511
1991	24463	24434	24215	24284	22467	13855	14968	19313	21692	22126	22085	23655
Avg	21427	19424	17918	14307	10942	9391	11857	14473	17253	19166	20384	21949

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3E

North Bay Aqueduct

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	212	196	185	177	177	177	181	193	210	230	242	236
1977	222	201	183	176	181	191	202	223	243	280	322	336
1978	313	275	241	227	278	293	322	273	245	261	236	208
1979	190	177	172	197	273	324	296	260	255	244	221	201
1980	185	176	183	222	307	397	316	286	246	222	201	188
1981	183	181	180	200	244	234	243	240	214	199	190	185
1982	182	189	206	289	439	360	512	417	256	203	192	189
1983	187	214	258	311	508	599	558	332	222	191	194	197
1984	193	201	252	376	267	229	222	192	187	194	206	213
1985	209	250	289	271	248	216	221	224	205	210	220	225
1986	223	220	220	232	248	287	278	234	214	229	239	239
1987	228	210	191	185	189	193	203	214	223	243	266	263
1988	237	208	193	190	210	224	232	237	252	285	302	283
1989	244	213	195	185	191	202	222	224	240	251	239	207
1990	188	177	173	176	197	231	268	277	275	274	242	217
1991	200	191	187	183	190	205	260	319	293	253	229	212
Avg	212	205	207	225	259	273	284	259	236	235	234	225

Terminous

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	342	316	269	243	204	192	331	476	530	285	209	297
1977	527	588	506	437	401	427	474	549	590	305	213	265
1978	376	434	340	200	189	213	200	270	415	324	206	281
1979	458	438	404	263	215	194	232	338	473	288	181	233
1980	399	426	351	199	192	164	206	201	244	183	161	164
1981	327	334	280	231	248	236	303	412	441	231	171	214
1982	331	251	198	217	169	206	139	137	167	166	161	167
1983	265	210	167	202	167	153	145	131	142	165	161	157
1984	212	165	190	165	153	154	149	160	196	194	183	231
1985	342	278	302	293	201	188	221	279	366	244	198	268
1986	420	423	318	235	162	145	155	173	256	217	198	225
1987	404	413	308	236	200	189	290	426	495	287	219	294
1988	433	412	284	230	228	262	412	563	603	328	215	262
1989	361	421	393	388	361	217	243	374	480	289	196	218
1990	311	378	401	388	338	317	401	568	585	276	178	208
1991	298	419	459	474	458	316	430	590	581	255	173	204
Avg	363	369	323	275	243	223	271	353	410	252	189	231

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3E

SJR @ Vernalis

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	591	623	724	733	747	697	645	639	866	1148	1188	1031
1977	760	649	754	858	937	892	725	618	833	1026	1078	1097
1978	1017	935	877	688	437	308	239	233	288	452	639	652
1979	531	564	675	568	396	330	344	363	451	625	704	698
1980	636	678	717	454	222	211	290	336	325	411	597	658
1981	529	572	721	690	642	629	589	589	650	842	1008	933
1982	766	748	746	517	290	233	191	178	240	385	477	416
1983	330	295	242	182	152	131	154	181	155	177	317	367
1984	321	273	205	200	264	332	400	439	506	637	701	684
1985	679	720	719	715	685	642	592	552	637	845	993	913
1986	747	754	816	736	425	166	216	282	299	518	713	704
1987	608	648	760	752	752	695	625	624	870	1094	1085	965
1988	779	790	910	929	941	902	733	621	856	1082	1113	1093
1989	1007	962	932	929	953	880	666	531	822	1002	987	966
1990	897	919	943	943	932	890	677	480	645	970	1159	1048
1991	948	955	966	974	995	833	596	525	776	1068	1142	1049
Avg	697	693	732	679	611	548	480	449	576	768	869	830

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	597	610	727	728	750	701	649	641	809	1097	1200	1058
1977	772	645	745	847	928	901	740	621	781	1033	1071	1102
1978	1024	939	880	701	442	311	240	235	291	452	637	658
1979	535	555	674	576	399	331	345	366	454	624	706	699
1980	640	667	724	461	224	211	289	338	328	409	585	662
1981	534	560	719	697	644	633	595	591	652	783	987	944
1982	774	741	755	526	293	236	192	178	240	381	480	419
1983	331	297	244	187	153	133	153	182	156	177	314	369
1984	322	275	206	200	263	331	399	441	503	631	705	689
1985	679	720	725	714	691	642	597	553	631	803	987	932
1986	757	745	821	744	431	167	215	283	301	500	722	709
1987	614	634	762	750	753	701	630	625	808	1085	1103	988
1988	789	776	905	924	937	908	749	624	801	1074	1110	1104
1989	1011	964	933	925	949	894	682	537	756	1023	974	977
1990	896	917	939	943	933	900	698	485	634	858	1113	1062
1991	947	954	963	973	991	856	606	531	701	986	1103	1061
Avg	701	687	733	681	611	554	486	452	553	745	862	840

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3E

SJR @ Rindle Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	624	563	645	629	656	645	633	634	611	597	557	666
1977	826	638	648	661	700	728	747	640	598	629	595	596
1978	912	923	814	762	503	346	258	244	313	440	541	610
1979	554	522	595	627	449	355	355	375	448	559	575	585
1980	651	621	681	513	252	218	289	355	350	395	448	555
1981	552	512	601	680	675	682	642	593	581	539	453	560
1982	788	712	740	629	327	282	203	183	243	339	449	444
1983	350	324	265	216	168	145	158	186	161	180	277	382
1984	327	294	229	210	267	330	391	444	463	516	559	608
1985	675	722	717	689	688	636	608	554	539	528	495	620
1986	789	713	740	745	465	178	213	289	316	380	538	631
1987	642	583	655	659	674	678	638	619	585	593	583	685
1988	823	721	708	712	687	680	742	637	603	602	557	588
1989	902	928	833	788	786	814	747	565	541	604	585	615
1990	838	861	762	730	762	740	750	523	512	537	452	509
1991	848	895	817	797	813	905	720	554	535	517	426	485
Avg	694	658	653	628	555	523	506	462	462	497	506	571

SJR @ Prisoners Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	474	418	379	363	339	316	361	430	420	336	264	304
1977	538	544	481	486	494	420	433	467	414	343	275	298
1978	452	561	540	510	486	370	272	247	307	338	285	311
1979	461	410	377	463	458	353	335	360	356	336	269	281
1980	431	424	403	516	283	224	262	341	347	300	245	259
1981	445	390	356	363	378	385	438	452	387	305	230	262
1982	420	427	360	542	382	306	219	182	228	240	251	348
1983	361	316	286	246	190	164	158	188	168	176	208	315
1984	320	303	252	217	245	277	308	352	321	280	258	289
1985	401	440	405	390	387	365	404	413	350	297	246	284
1986	444	464	431	431	496	194	200	274	312	275	256	296
1987	473	431	387	359	337	337	373	407	369	321	270	309
1988	459	463	414	358	303	291	377	463	420	343	272	296
1989	446	593	594	591	550	378	400	442	377	331	263	284
1990	405	464	440	434	409	354	440	484	424	319	237	263
1991	412	560	588	597	563	468	503	490	422	311	229	262
Avg	434	451	418	429	394	325	343	375	351	303	254	291

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3E

SJR @ San Andreas Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	358	349	323	311	262	237	275	358	381	297	249	326
1977	464	502	470	525	511	396	381	394	372	301	255	327
1978	489	543	500	300	307	285	244	234	300	294	237	273
1979	373	353	326	347	329	272	282	311	308	272	225	263
1980	348	349	322	356	237	201	228	287	312	244	202	222
1981	337	335	310	271	259	256	313	352	336	276	223	283
1982	370	322	227	305	254	235	184	170	207	202	196	264
1983	322	252	227	220	181	160	154	169	164	172	182	238
1984	265	223	203	191	196	207	233	257	257	227	211	255
1985	342	316	298	296	272	259	296	314	298	267	232	296
1986	391	385	356	333	306	175	184	240	290	245	215	263
1987	365	369	339	293	243	228	266	310	322	285	252	322
1988	414	402	373	293	236	234	296	388	383	307	255	321
1989	490	622	612	639	545	259	262	326	329	294	246	300
1990	394	418	406	416	349	291	330	413	412	291	232	293
1991	454	598	626	654	565	333	350	409	402	289	229	301
Avg	386	396	370	359	316	252	267	308	317	266	228	284

SJR @ Jersey Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	388	420	452	428	300	255	321	486	534	433	390	581
1977	727	746	764	941	841	635	576	534	514	436	403	599
1978	912	896	736	364	325	294	246	227	281	325	309	389
1979	428	428	451	353	339	276	268	286	294	316	308	407
1980	460	431	362	361	250	204	219	277	313	293	254	299
1981	352	401	440	304	272	277	317	364	437	424	359	513
1982	577	357	248	334	282	244	194	172	203	224	228	271
1983	307	258	240	238	192	167	157	173	169	172	199	233
1984	252	235	210	195	201	213	232	245	257	272	273	360
1985	512	350	302	311	289	278	313	326	369	399	361	509
1986	592	503	439	368	335	184	182	233	286	300	277	370
1987	439	483	497	356	261	247	277	342	436	427	398	561
1988	673	618	581	353	256	283	396	531	545	457	409	580
1989	974	1159	1074	1129	842	318	270	315	400	439	396	533
1990	707	712	683	682	455	379	384	499	593	443	382	542
1991	912	1145	1143	1177	900	393	351	457	584	463	383	576
Avg	576	571	539	493	396	290	294	342	388	364	333	458

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3E

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1432	1796	2161	1964	700	484	1284	2308	1980	1492	1530	2510
1977	3241	3227	3417	4120	3455	2862	2659	2385	1894	1506	1557	2569
1978	3478	3155	2532	443	294	275	238	221	331	592	886	1610
1979	1763	1889	2183	611	317	260	273	351	409	720	982	1794
1980	1737	1519	1013	350	249	198	211	265	431	517	644	1195
1981	1328	1751	2169	565	253	257	550	1088	1568	1608	1515	2365
1982	2269	733	233	306	278	238	195	171	204	312	448	506
1983	387	249	236	240	198	172	158	172	170	170	270	236
1984	238	227	210	190	193	201	227	264	393	665	834	1505
1985	2534	664	500	675	406	346	821	913	1291	1527	1467	2253
1986	2268	1730	1415	821	341	186	178	225	389	706	822	1546
1987	1878	2186	2376	1201	331	231	513	1234	1679	1580	1564	2394
1988	3080	2833	2688	875	487	1117	1918	2452	2047	1617	1595	2494
1989	4368	4722	4333	4513	3155	439	280	545	1268	1595	1597	2379
1990	3365	3281	3143	3139	1544	1619	1427	2057	2157	1597	1589	2474
1991	4210	4780	4607	4684	3448	682	515	1654	2174	1735	1640	2590
Avg	2349	2171	2076	1544	978	598	715	1019	1149	1121	1184	1901

Old River @ Middle River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	732	783	728	730	749	699	658	704	829	1116	1197	1048
1977	952	948	757	850	931	898	767	782	807	1032	1072	1101
1978	1047	992	879	697	442	312	240	235	292	454	637	656
1979	624	649	674	575	399	332	356	635	460	624	705	699
1980	698	699	720	460	224	211	295	339	329	411	589	661
1981	632	654	720	695	645	632	615	708	659	803	997	940
1982	853	846	754	525	293	237	192	179	240	383	480	418
1983	331	297	244	187	153	133	154	182	156	178	316	369
1984	385	279	206	201	264	332	400	527	508	633	703	688
1985	706	807	729	715	689	642	614	632	638	817	990	925
1986	876	928	823	741	430	167	216	284	301	506	719	708
1987	756	816	765	751	753	699	641	700	829	1090	1096	979
1988	899	896	906	925	938	906	776	792	828	1084	1109	1101
1989	1018	959	931	926	950	889	719	805	792	1017	978	974
1990	889	861	936	943	933	896	751	803	665	892	1138	1058
1991	930	882	960	973	992	848	631	732	738	1020	1122	1058
Avg	771	769	733	681	612	552	502	565	567	754	866	836

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3E

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	731	749	732	727	751	703	667	707	807	1090	1201	1069
1977	962	918	762	839	918	902	782	796	814	1037	1073	1103
1978	1051	954	880	711	456	349	244	240	304	465	642	663
1979	629	637	671	590	411	338	385	554	482	632	710	701
1980	699	682	720	476	247	216	329	349	338	415	584	664
1981	635	634	714	709	657	646	644	734	670	776	976	944
1982	858	827	762	559	303	288	196	181	244	385	485	423
1983	335	318	255	256	176	168	156	184	158	180	318	374
1984	382	286	227	208	269	336	416	490	512	633	708	695
1985	707	793	746	722	697	648	623	643	642	799	984	940
1986	881	886	830	752	447	181	217	287	308	505	730	717
1987	755	760	763	751	753	705	652	697	807	1082	1108	997
1988	907	871	895	913	930	908	793	815	835	1083	1111	1105
1989	1023	927	924	918	942	899	745	819	816	1027	974	980
1990	897	846	919	940	931	905	784	833	731	862	1100	1062
1991	936	857	942	970	988	870	665	759	743	974	1090	1059
Avg	774	747	734	690	617	566	519	568	576	747	862	844

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	587	554	677	692	731	694	664	603	672	682	723	814
1977	645	675	709	756	802	814	777	670	703	726	695	745
1978	598	673	802	736	472	339	248	246	318	475	600	662
1979	553	506	615	606	420	342	363	416	506	604	632	648
1980	533	533	680	487	274	216	298	357	351	415	523	642
1981	528	494	630	712	673	661	646	646	646	581	576	713
1982	548	579	721	594	310	267	199	186	249	376	488	433
1983	340	315	263	247	181	159	159	187	162	184	311	381
1984	373	290	225	208	269	334	396	404	502	573	630	670
1985	559	594	724	721	709	650	630	565	589	583	619	761
1986	609	620	756	760	458	183	216	291	318	441	633	692
1987	588	568	680	717	734	710	651	585	647	689	698	787
1988	625	621	727	790	790	776	799	676	708	672	660	736
1989	587	682	821	849	866	864	769	681	704	716	659	764
1990	575	596	738	816	824	807	808	739	733	617	559	711
1991	545	638	798	874	895	901	685	689	692	604	548	675
Avg	550	559	660	660	588	545	519	496	531	559	597	677

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3E

Old River @ Rock Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	491	486	525	553	575	545	565	513	557	500	429	444
1977	564	636	622	636	660	607	624	569	573	512	442	426
1978	524	662	692	736	527	367	257	256	336	440	448	512
1979	487	460	492	611	458	361	363	377	489	489	438	447
1980	458	482	547	517	273	225	291	371	375	402	392	458
1981	453	445	476	600	633	633	619	545	517	446	358	377
1982	462	511	569	661	348	287	205	189	253	334	407	443
1983	358	332	284	266	189	169	163	190	167	189	277	387
1984	351	306	240	218	272	333	376	366	444	430	415	475
1985	463	519	601	618	644	600	582	487	468	427	377	424
1986	504	549	591	660	480	187	215	295	333	370	402	486
1987	497	505	523	563	583	603	582	487	505	472	426	453
1988	527	564	557	556	512	479	619	561	577	509	433	424
1989	517	699	750	751	753	668	662	547	522	479	415	429
1990	479	557	586	602	603	548	677	602	591	477	372	371
1991	473	660	734	781	765	772	691	590	573	466	357	354
Avg	476	523	549	582	517	462	468	434	455	434	399	432

Old River @ Holland Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	462	458	450	456	446	415	447	472	498	444	371	385
1977	560	621	587	606	630	536	532	526	505	451	386	383
1978	532	660	650	655	541	384	267	257	329	390	374	393
1979	462	441	434	541	480	371	351	362	413	417	364	361
1980	441	460	463	525	288	230	273	362	372	368	326	338
1981	426	424	417	467	504	514	530	490	455	404	319	328
1982	455	480	460	632	381	298	212	189	243	287	321	399
1983	368	335	295	283	201	177	165	192	171	186	241	352
1984	335	312	248	222	264	311	341	351	375	359	336	367
1985	435	487	490	492	509	488	490	447	409	383	333	357
1986	486	520	508	533	495	195	210	289	329	335	327	376
1987	470	480	461	456	445	460	472	442	439	418	373	392
1988	513	541	507	460	396	367	466	514	513	455	382	379
1989	527	715	741	737	714	538	516	483	445	425	367	366
1990	470	545	545	536	514	444	532	535	526	430	334	332
1991	485	677	736	750	726	622	606	534	515	424	322	328
Avg	464	510	500	522	471	397	401	403	409	386	342	365

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3E

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	658	622	726	720	748	713	680	672	781	830	872	926
1977	725	722	734	760	794	835	810	731	834	913	876	853
1978	671	719	813	737	484	358	254	255	351	536	677	686
1979	595	544	640	626	439	361	381	485	591	694	704	697
1980	582	583	704	502	262	225	314	376	372	439	564	668
1981	576	538	670	756	721	716	673	725	740	661	661	776
1982	606	647	766	629	327	307	202	188	260	401	507	440
1983	345	327	262	262	176	160	159	189	164	193	336	389
1984	394	300	229	228	290	347	409	455	536	634	707	726
1985	624	688	806	772	723	660	640	614	664	686	740	863
1986	693	705	828	778	458	186	222	299	336	528	752	767
1987	664	637	731	743	748	722	670	664	783	853	886	913
1988	701	683	762	804	809	818	825	744	861	875	862	845
1989	654	708	821	837	859	894	798	787	920	906	802	826
1990	633	653	764	839	862	873	845	819	895	773	674	776
1991	601	661	799	887	921	953	712	778	828	703	640	742
Avg	608	609	691	680	601	571	537	549	620	664	704	743

Middle River @ Santa Fe Rail Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	580	555	567	596	617	616	623	583	613	601	533	512
1977	651	668	633	624	631	632	667	632	638	626	570	504
1978	580	726	738	755	519	366	257	254	338	476	533	576
1979	553	505	526	632	459	362	368	399	522	572	529	508
1980	537	565	592	523	270	224	294	370	379	418	450	503
1981	528	494	516	644	708	713	675	617	591	526	435	412
1982	542	627	645	666	341	308	206	187	254	353	451	455
1983	354	330	276	267	190	174	161	189	168	190	289	392
1984	362	305	239	223	278	338	389	428	483	505	495	539
1985	550	629	687	700	702	661	629	559	541	508	464	472
1986	589	646	655	711	480	189	214	295	336	404	472	551
1987	585	570	567	605	634	661	646	581	588	578	546	531
1988	612	646	618	604	582	551	666	628	634	616	545	488
1989	570	722	756	732	731	731	756	639	609	589	541	488
1990	553	656	660	634	646	636	741	657	615	557	453	402
1991	518	680	731	732	750	837	767	653	608	533	429	385
Avg	542	583	588	603	534	500	504	479	495	503	483	482

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3E

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	552	485	459	442	437	420	456	514	486	419	332	347
1977	644	604	540	524	543	494	523	552	486	431	349	336
1978	517	663	629	647	558	388	275	252	313	385	368	387
1979	518	462	447	544	500	380	355	374	396	421	355	347
1980	519	504	492	546	292	230	275	359	363	354	312	328
1981	507	444	427	465	504	518	549	532	459	377	281	296
1982	521	546	502	632	401	318	222	185	236	281	319	406
1983	375	333	294	264	204	178	161	190	172	180	234	354
1984	333	315	255	224	263	312	354	412	386	359	338	363
1985	489	565	526	499	508	485	503	494	420	366	305	329
1986	545	563	527	541	514	200	205	284	322	318	326	371
1987	556	500	465	449	448	463	485	501	443	401	342	360
1988	561	561	498	455	403	378	476	547	489	427	343	333
1989	508	672	662	636	621	526	546	530	443	410	336	331
1990	491	575	531	501	502	451	548	538	470	393	290	288
1991	472	633	646	637	631	620	636	548	474	380	276	281
Avg	507	527	494	500	458	398	411	426	397	369	319	341

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	715	695	729	729	750	701	661	671	798	1085	1199	1062
1977	939	840	757	844	924	903	779	768	792	1028	1069	1103
1978	1018	847	878	705	447	317	241	236	296	457	637	660
1979	619	607	671	582	403	335	350	452	469	625	707	700
1980	688	639	719	465	229	213	288	341	332	411	584	663
1981	625	598	716	702	651	638	617	683	666	777	984	945
1982	842	752	754	536	296	244	193	179	241	383	482	420
1983	333	300	245	199	157	140	154	182	157	178	315	371
1984	359	279	208	204	267	334	396	443	507	631	705	691
1985	690	710	731	719	694	644	618	621	636	796	984	934
1986	855	800	824	747	434	169	216	284	303	497	722	711
1987	723	702	760	752	753	703	642	658	795	1078	1104	991
1988	888	797	898	921	934	909	788	779	811	1059	1109	1106
1989	990	819	926	922	946	896	730	766	788	1022	974	979
1990	881	766	922	941	932	901	764	803	706	850	1111	1065
1991	918	761	946	971	990	860	635	710	731	979	1102	1063
Avg	755	682	730	684	613	557	505	536	564	741	862	842

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3E

Grant Line Canal @ West End

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	676	622	727	725	752	704	667	646	747	977	1161	1084
1977	824	737	756	833	914	908	795	729	759	986	1041	1096
1978	835	714	871	715	451	319	242	236	298	461	639	665
1979	600	559	663	588	407	336	352	444	484	628	710	702
1980	631	577	715	469	230	213	290	343	334	411	576	666
1981	594	544	705	708	655	643	631	679	674	732	933	949
1982	733	646	754	547	299	246	194	179	241	381	485	423
1983	334	300	246	204	159	142	154	183	158	178	314	373
1984	368	280	209	204	267	333	397	430	507	627	709	697
1985	652	643	735	720	699	645	626	603	631	756	952	949
1986	772	697	822	754	438	170	215	284	304	485	731	719
1987	679	634	753	751	754	707	649	633	734	1010	1085	1010
1988	796	692	877	916	929	913	807	743	773	896	1047	1100
1989	817	701	910	918	941	906	752	742	770	995	958	982
1990	769	652	893	940	932	909	794	794	753	771	981	1062
1991	770	651	916	969	986	879	655	716	726	852	990	1057
Avg	678	603	722	685	613	561	514	524	556	697	832	846

DMC Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	185	181	190	203	230	226	156	176	153	239	284	305
1977	264	269	274	278	542	713	308	202	220	330	294	372
1978	422	325	201	393	268	195	151	186	153	185	197	189
1979	191	187	179	185	204	178	152	230	153	196	229	222
1980	194	184	184	203	192	169	153	160	174	179	206	198
1981	190	200	183	216	222	209	154	160	172	197	219	236
1982	224	180	186	194	188	166	151	168	162	168	178	172
1983	166	164	167	173	164	157	151	157	156	154	161	173
1984	186	182	167	162	163	168	152	233	153	184	220	202
1985	189	181	187	219	230	212	154	184	165	198	224	264
1986	259	221	191	195	256	175	152	158	168	177	218	207
1987	200	212	184	228	257	245	158	184	159	245	296	325
1988	348	308	187	196	343	354	167	179	190	331	281	398
1989	397	231	240	229	518	260	155	176	158	215	252	233
1990	237	258	246	196	294	278	166	163	198	325	261	318
1991	383	354	345	366	605	201	158	161	196	320	260	337
Avg	252	227	207	227	292	244	165	180	171	228	236	259

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3E

Clifton Court Forebay

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	185	181	190	203	230	226	156	176	153	239	284	305
1977	264	269	274	278	542	713	308	202	220	330	294	372
1978	422	325	201	393	268	195	151	186	153	185	197	189
1979	191	187	179	185	204	178	152	230	153	196	229	222
1980	194	184	184	203	192	169	153	160	174	179	206	198
1981	190	200	183	216	222	209	154	160	172	197	219	236
1982	224	180	186	194	188	166	151	168	162	168	178	172
1983	166	164	167	173	164	157	151	157	156	154	161	173
1984	186	182	167	162	163	168	152	233	153	184	220	202
1985	189	181	187	219	230	212	154	184	165	198	224	264
1986	259	221	191	195	256	175	152	158	168	177	218	207
1987	200	212	184	228	257	245	158	184	159	245	296	325
1988	348	308	187	196	343	354	167	179	190	331	281	398
1989	397	231	240	229	518	260	155	176	158	215	252	233
1990	237	258	246	196	294	278	166	163	198	325	261	318
1991	383	354	345	366	605	201	158	161	196	320	260	337
Avg	252	227	207	227	292	244	165	180	171	228	236	259

Contra Costa Canal Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	565	547	596	644	673	645	697	600	629	614	571	563
1977	615	687	684	693	706	684	718	640	667	625	563	528
1978	565	672	725	811	675	540	322	313	417	495	515	576
1979	521	499	539	671	566	408	448	460	552	571	518	540
1980	504	520	602	617	553	290	396	432	418	443	451	537
1981	503	486	530	681	728	744	780	638	578	508	420	461
1982	504	557	637	970	565	512	306	231	274	371	461	481
1983	393	424	461	758	493	456	300	227	204	220	311	415
1984	387	401	392	278	307	357	432	405	480	503	497	578
1985	529	622	704	735	741	692	685	554	522	496	451	534
1986	577	613	686	757	711	299	260	326	367	425	495	610
1987	570	560	588	656	686	712	716	569	566	564	534	574
1988	612	626	630	661	643	625	763	649	671	659	552	561
1989	555	693	754	776	796	781	788	661	614	559	485	523
1990	528	583	626	675	700	659	849	708	702	575	457	459
1991	505	650	728	778	807	868	796	684	660	535	430	424
Avg	527	571	618	698	647	580	579	506	520	510	482	523

Department of Water Resources, Delta Modeling Section

Table 4-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3E

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	625	580	722	711	739	720	666	647	699	780	860	1044
1977	829	640	697	756	818	884	806	643	689	828	913	946
1978	1032	952	884	770	532	414	319	271	349	468	631	686
1979	553	532	653	638	476	375	369	377	484	627	705	706
1980	655	638	740	562	381	269	302	374	358	409	524	649
1981	553	527	685	744	716	722	660	598	642	667	657	834
1982	808	728	799	692	397	413	289	220	249	361	490	451
1983	359	343	323	409	217	165	194	210	165	191	297	389
1984	329	311	286	264	286	338	397	445	489	595	687	721
1985	689	733	774	753	727	665	621	556	599	662	712	904
1986	808	732	833	794	539	269	244	300	325	424	689	762
1987	642	600	744	744	744	727	660	630	688	781	884	1015
1988	846	744	835	849	857	885	800	642	692	781	823	927
1989	1018	967	927	885	887	920	774	565	630	791	869	892
1990	902	904	898	891	907	918	787	518	561	670	654	802
1991	952	945	932	927	949	983	728	554	584	635	626	782
Avg	725	680	733	712	636	604	539	472	513	604	689	782

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	560	509	486	472	470	460	488	538	516	458	371	371
1977	649	627	564	540	559	523	549	578	519	471	392	361
1978	528	687	663	680	586	401	277	256	322	401	405	416
1979	527	478	470	561	519	391	362	379	415	455	395	376
1980	528	530	520	557	303	234	277	365	375	374	344	353
1981	512	462	451	493	549	566	590	558	492	413	312	312
1982	532	580	544	662	416	328	223	187	240	293	343	423
1983	383	339	300	281	214	189	163	192	174	184	243	362
1984	341	321	258	230	268	320	364	420	410	392	372	393
1985	506	592	569	542	550	531	536	518	452	398	336	350
1986	558	594	562	575	522	205	206	287	329	337	354	401
1987	565	524	492	481	484	503	524	530	477	438	381	386
1988	577	593	531	490	443	414	500	573	521	466	383	356
1989	519	689	689	654	646	577	593	562	477	447	377	355
1990	507	605	568	527	533	492	576	567	494	429	322	304
1991	479	649	667	653	655	663	688	576	500	415	306	293
Avg	517	549	521	525	482	425	432	443	420	398	352	363

Department of Water Resources, Delta Modeling Section

Figure 4-4
Distance Reference for X2 Tables
(values shown in kilometers from Golden Gate)

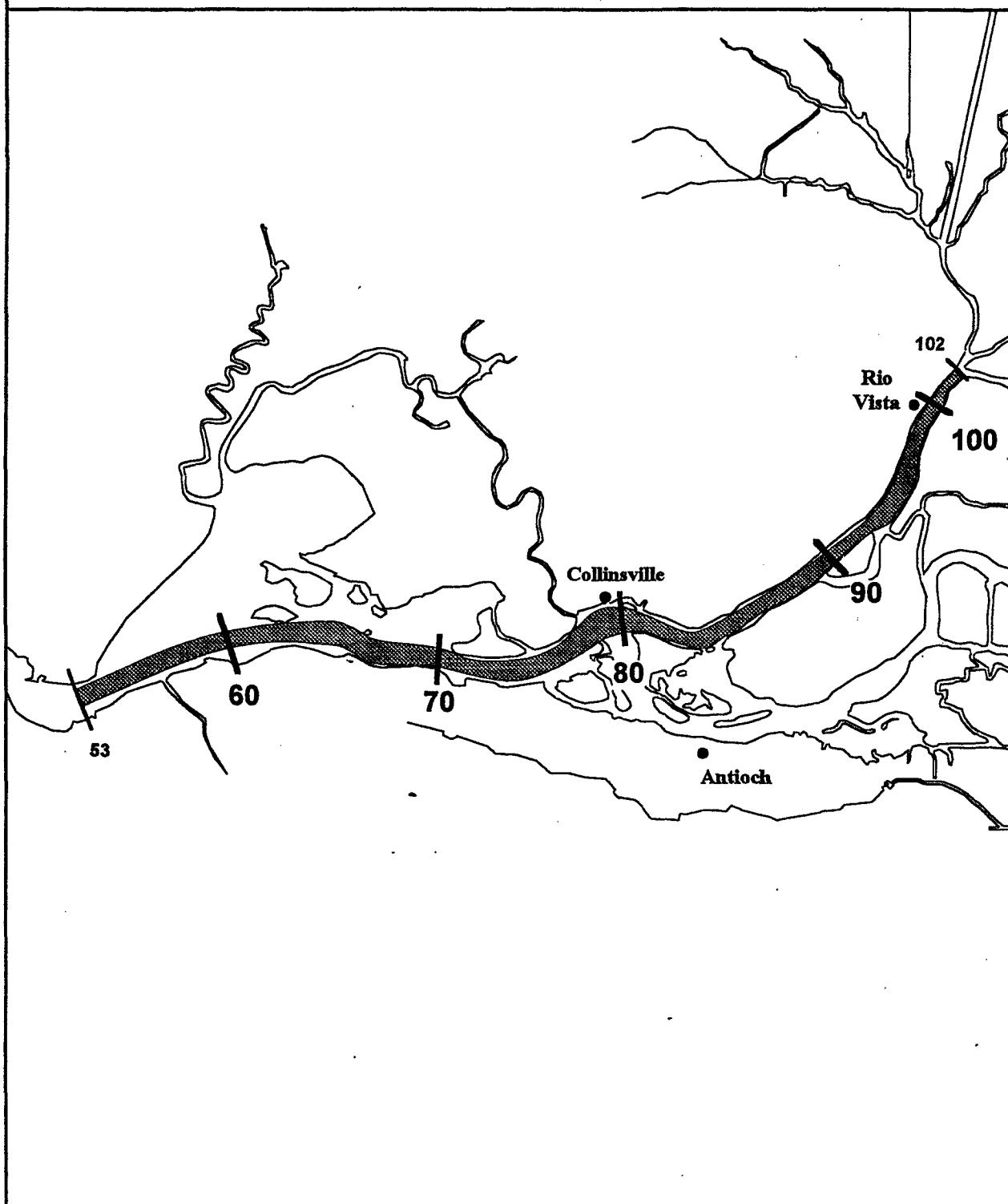


Table 4-5
Monthly Average Location of 2640 micro Siemens/cm, EC
(Values in km from Golden Gate)
(Benicia Assumed to be at 53.1 km from Golden gate)
(Hydrology from DWRSIM Study 551)

Alternative 3E

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	77.9	79.9	81.9	81.1	71.2	70.6	77.2	82.6	80.2	77.7	78.2	83.1
1977	85.4	85.2	85.5	87.1	85.0	84.0	83.6	82.8	79.7	77.9	78.4	83.2
1978	85.9	85.1	83.3	59.4	57.5	56.1	58.9	61.8	66.3	71.7	74.3	78.7
1979	80.2	80.7	82.0	69.0	61.3	61.2	63.4	66.4	68.3	73.0	74.9	79.8
1980	79.3	77.5	74.2	58.8	*	56.6	61.8	62.2	68.7	71.4	72.9	76.1
1981	77.5	79.8	82.0	67.7	62.5	62.4	70.2	75.4	77.6	78.7	78.3	82.6
1982	82.2	70.5	57.8	54.6	*	*	*	57.7	62.4	67.4	71.2	71.6
1983	67.3	61.1	56.9	*	*	*	56.1	57.3	56.2	61.3	66.2	63.0
1984	62.4	57.5	*	56.1	59.7	60.8	62.5	64.2	68.7	72.9	74.2	78.1
1985	83.2	67.8	69.8	72.5	67.9	66.4	73.7	74.2	76.0	78.2	77.9	82.2
1986	82.2	78.8	76.6	72.9	61.1	0.0	61.4	62.2	68.4	73.1	74.1	78.4
1987	80.9	81.9	82.7	75.9	65.2	62.2	70.0	76.3	78.4	78.6	78.5	82.7
1988	84.6	83.9	83.5	72.0	70.6	75.8	81.0	83.1	80.6	78.6	78.7	83.0
1989	87.0	87.5	87.0	87.7	84.1	63.1	63.9	70.7	75.7	78.5	78.8	82.7
1990	85.1	84.8	84.5	84.7	77.3	78.8	77.6	81.5	81.0	78.5	78.8	83.0
1991	86.8	87.6	87.4	87.8	84.9	67.5	69.7	79.3	81.6	79.8	79.3	79.3
Avg	80.5	78.1	**	**	**	**	**	71.1	73.1	74.8	75.9	79.2

* Values Downstream of Model Boundary - Benicia

** 16 Year Average not Reported - Contains Values Downstream of Benicia.

Department of Water Resources, Delta Modeling Section

Figure 4-5
Output Locations for Minimum Water Levels
Alternative 3E

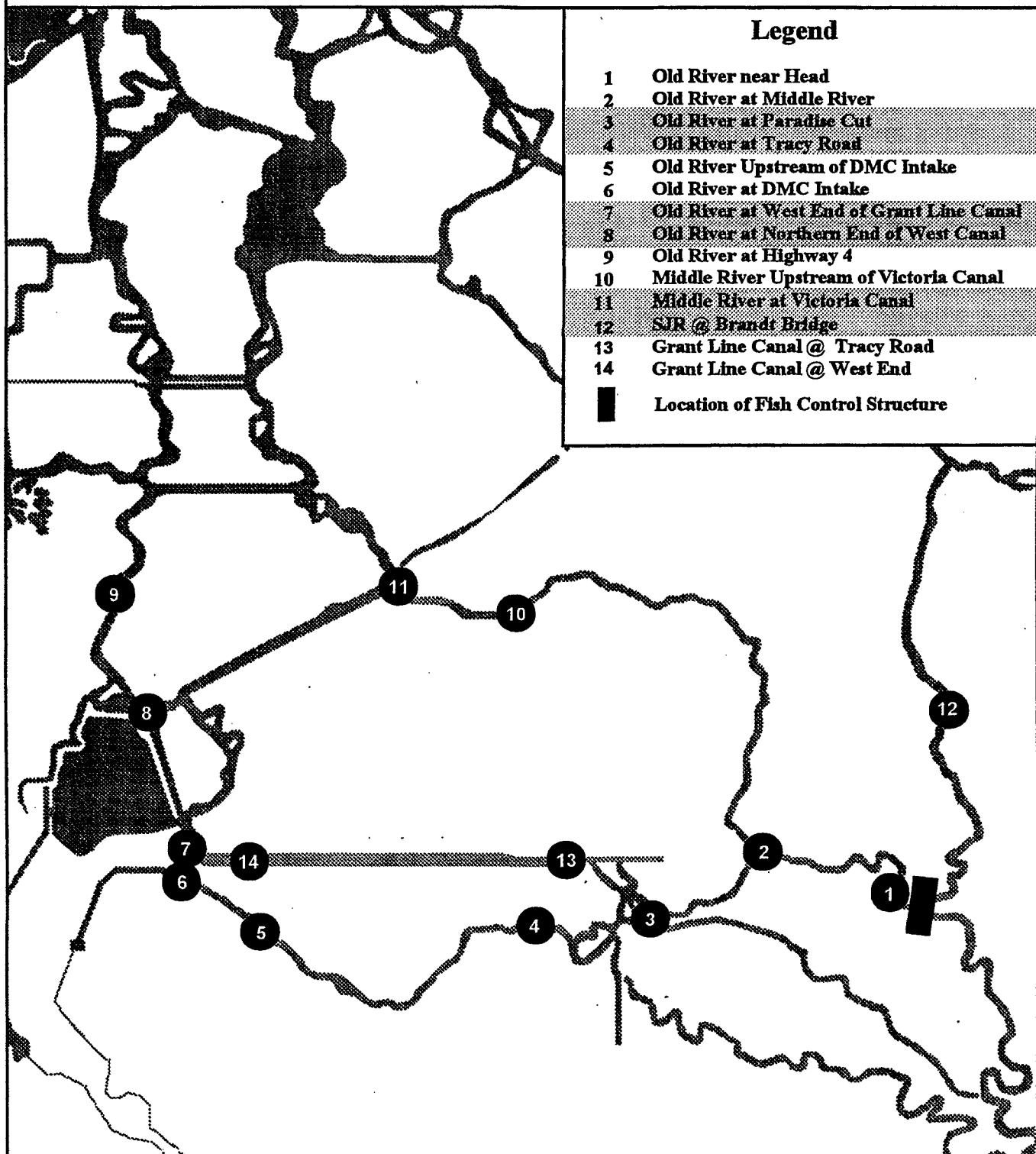


Table 4-6
Minimum Water Levels
 (Values in feet above mean sea level)

Alternative 3E

Old River near Head

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.51	-0.81	-0.82	0.06	-0.03	0.04	0.18
1977	0.35	-0.82	-0.81	0.02	0.02	0.02	0.10
1978	6.12	6.12	5.04	2.82	0.74	0.35	0.68
1979	2.07	-0.72	-0.77	0.86	0.30	0.30	0.43
1980	2.41	-0.70	3.04	2.72	1.04	0.37	0.63
1981	0.74	-0.79	-0.81	0.21	0.02	0.06	0.26
1982	10.20	10.20	7.14	3.80	0.91	0.75	1.90
1983	8.00	8.00	8.48	13.00	5.62	0.90	2.57
1984	1.29	-0.74	-0.79	0.60	0.33	0.38	0.49
1985	0.75	-0.80	-0.81	0.22	0.04	0.06	0.28
1986	4.05	4.05	3.65	3.21	0.31	0.35	0.43
1987	0.57	-0.80	-0.82	0.05	0.00	0.04	0.22
1988	0.48	-0.82	-0.82	0.02	-0.09	0.00	0.11
1989	0.67	-0.78	-0.80	0.01	0.05	0.04	0.24
1990	0.64	-0.80	-0.81	0.02	-0.06	-0.01	0.17
1991	0.78	-0.79	-0.82	0.02	-0.04	-0.01	0.14
Avg	2.48	1.19	1.15	1.73	0.57	0.23	0.55

Old River @ Middle River

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.00	-0.77	-0.79	-0.26	-0.32	-0.27	-0.20
1977	-0.09	-0.78	-0.78	-0.28	-0.29	-0.28	-0.24
1978	3.51	3.51	2.76	1.34	0.11	-0.11	0.08
1979	0.92	-0.69	-0.73	0.20	-0.14	-0.13	-0.06
1980	1.12	-0.66	1.50	1.27	0.29	-0.09	0.05
1981	0.14	-0.76	-0.77	-0.19	-0.29	-0.27	-0.16
1982	6.43	6.43	4.21	1.95	0.21	0.12	0.80
1983	4.86	4.86	5.16	8.40	3.13	0.21	1.21
1984	0.47	-0.70	-0.75	0.05	-0.12	-0.09	-0.02
1985	0.14	-0.76	-0.77	-0.19	-0.28	-0.26	-0.14
1986	2.15	2.15	1.87	1.56	-0.13	-0.10	-0.05
1987	0.03	-0.77	-0.79	-0.27	-0.30	-0.28	-0.18
1988	-0.01	-0.78	-0.78	-0.28	-0.35	-0.29	-0.24
1989	0.10	-0.75	-0.76	-0.29	-0.27	-0.28	-0.16
1990	0.08	-0.76	-0.77	-0.28	-0.34	-0.31	-0.20
1991	0.16	-0.75	-0.78	-0.28	-0.33	-0.30	-0.22
Avg	1.25	0.50	0.44	0.78	0.04	-0.17	0.02

Department of Water Resources, Delta Modeling Section

Table 4-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3E

Old River near Paradise Cut

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.26	-0.71	-0.72	-0.40	-0.45	-0.42	-0.38
1977	-0.31	-0.72	-0.71	-0.42	-0.43	-0.43	-0.40
1978	1.56	1.56	1.10	0.38	-0.22	-0.34	-0.23
1979	0.21	-0.62	-0.67	-0.16	-0.35	-0.34	-0.31
1980	0.32	-0.60	0.49	0.33	-0.12	-0.32	-0.24
1981	-0.18	-0.69	-0.71	-0.38	-0.44	-0.42	-0.36
1982	3.31	3.31	1.92	0.68	0.16	-0.21	0.13
1983	2.37	2.37	2.49	4.28	1.29	-0.16	0.36
1984	0.00	-0.64	-0.69	-0.23	-0.34	-0.32	-0.28
1985	-0.18	-0.70	-0.71	-0.37	-0.43	-0.42	-0.35
1986	0.83	0.83	0.67	0.47	0.34	-0.33	-0.30
1987	-0.24	-0.71	-0.73	-0.41	-0.44	-0.43	-0.37
1988	-0.27	-0.72	-0.72	-0.42	-0.47	-0.44	-0.40
1989	-0.19	-0.68	-0.70	-0.43	-0.43	-0.43	-0.36
1990	-0.22	-0.70	-0.71	-0.42	-0.46	-0.44	-0.38
1991	-0.17	-0.69	-0.72	-0.42	-0.46	-0.44	-0.39
Avg	0.41	-0.01	-0.07	0.13	-0.27	-0.37	-0.27

Old River @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.34	-0.73	-0.74	-0.47	-0.52	-0.49	-0.45
1977	-0.39	-0.74	-0.73	-0.48	-0.51	-0.50	-0.47
1978	1.09	1.09	0.70	0.12	-0.33	-0.42	-0.33
1979	0.02	-0.64	-0.69	-0.27	-0.43	-0.42	-0.39
1980	0.11	-0.62	0.23	0.08	-0.25	-0.40	-0.33
1981	-0.28	-0.71	-0.73	-0.45	-0.51	-0.49	-0.43
1982	2.57	2.57	1.37	0.36	-0.28	-0.31	-0.04
1983	1.78	1.78	1.84	3.27	0.83	-0.27	0.13
1984	-0.13	-0.66	-0.71	-0.33	-0.42	-0.40	-0.37
1985	-0.28	-0.72	-0.72	-0.45	-0.50	-0.49	-0.42
1986	0.51	0.51	0.37	0.19	-0.43	-0.41	-0.38
1987	-0.33	-0.72	-0.74	-0.48	-0.51	-0.50	-0.44
1988	-0.35	-0.73	-0.74	-0.49	-0.53	-0.50	-0.47
1989	-0.29	-0.70	-0.72	-0.50	-0.50	-0.50	-0.43
1990	-0.31	-0.72	-0.73	-0.49	-0.53	-0.51	-0.45
1991	-0.27	-0.71	-0.74	-0.49	-0.53	-0.51	-0.46
Avg	0.19	-0.15	-0.22	-0.06	-0.37	-0.45	-0.36

Table 4-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3E

Old River Upstream of DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.35	-0.57	-0.58	-0.42	-0.46	-0.44	-0.42
1977	-0.38	-0.58	-0.57	-0.43	-0.45	-0.45	-0.44
1978	0.60	0.60	0.31	-0.05	-0.35	-0.41	-0.36
1979	-0.10	-0.48	-0.53	-0.30	-0.41	-0.40	-0.39
1980	-0.04	-0.46	0.02	-0.09	-0.30	-0.39	-0.35
1981	-0.30	-0.55	-0.57	-0.42	-0.46	-0.45	-0.41
1982	1.75	1.75	0.79	0.08	-0.31	-0.34	-0.17
1983	1.15	1.15	1.16	2.10	0.38	0.31	0.03
1984	-0.20	-0.50	-0.55	-0.33	-0.40	-0.39	-0.38
1985	-0.31	-0.56	-0.56	-0.42	-0.45	-0.45	-0.41
1986	0.21	0.21	0.11	-0.02	-0.40	-0.40	-0.38
1987	0.33	0.56	-0.58	-0.43	-0.45	-0.45	-0.42
1988	-0.35	-0.57	-0.58	-0.43	-0.47	-0.45	-0.43
1989	-0.30	-0.54	-0.56	-0.44	-0.45	-0.45	-0.41
1990	-0.32	-0.56	-0.57	-0.43	-0.47	-0.46	-0.42
1991	-0.30	-0.55	-0.58	-0.43	-0.46	-0.46	-0.43
Avg	0.03	-0.17	-0.24	-0.15	-0.37	-0.42	-0.37

Old River @ DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.34	-0.56	-0.57	-0.41	-0.45	-0.44	-0.42
1977	-0.37	-0.57	-0.56	-0.42	-0.45	-0.44	-0.43
1978	0.58	0.58	0.29	-0.06	-0.34	-0.40	-0.35
1979	-0.11	-0.47	-0.52	-0.29	-0.40	-0.40	-0.38
1980	-0.05	-0.45	0.01	-0.10	-0.29	-0.38	-0.35
1981	-0.30	-0.54	-0.56	-0.41	-0.45	-0.44	-0.41
1982	1.70	1.70	0.76	0.06	-0.31	-0.33	-0.17
1983	1.12	1.12	1.12	2.03	0.36	0.31	-0.04
1984	-0.20	-0.49	-0.54	-0.33	-0.40	-0.39	-0.37
1985	-0.31	-0.55	-0.55	-0.41	-0.45	-0.44	-0.40
1986	0.19	0.19	0.09	-0.04	-0.40	-0.39	-0.37
1987	0.33	-0.55	-0.57	-0.42	-0.45	-0.44	-0.42
1988	-0.35	-0.56	-0.57	-0.42	-0.46	-0.45	-0.43
1989	-0.29	-0.53	-0.55	-0.44	-0.45	-0.45	-0.41
1990	-0.32	-0.55	-0.56	-0.42	-0.46	-0.45	-0.42
1991	-0.29	-0.54	-0.57	-0.42	-0.46	-0.45	-0.43
Avg	0.02	-0.17	-0.24	-0.16	-0.37	-0.41	-0.36

Department of Water Resources, Delta Modeling Section

Table 4-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3E

Old River @ West End of Grant Line Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.33	-0.54	-0.56	-0.40	-0.44	-0.43	-0.41
1977	-0.36	-0.55	-0.55	-0.41	-0.44	-0.43	-0.42
1978	0.58	0.58	0.29	-0.05	-0.33	-0.39	-0.34
1979	-0.09	-0.46	-0.51	-0.28	-0.39	-0.39	-0.37
1980	-0.04	-0.43	0.02	-0.09	-0.28	-0.37	-0.34
1981	-0.29	-0.53	-0.54	-0.40	-0.44	-0.43	-0.40
1982	-1.69	1.69	0.77	0.07	-0.30	-0.32	-0.16
1983	1.12	1.12	1.12	2.02	0.36	-0.30	0.03
1984	-0.18	-0.47	-0.52	-0.31	-0.39	-0.38	-0.36
1985	-0.29	-0.53	-0.54	-0.40	-0.44	-0.43	-0.39
1986	0.20	0.20	0.10	-0.03	-0.39	-0.38	-0.36
1987	-0.32	-0.54	-0.56	-0.41	-0.44	-0.43	-0.41
1988	-0.34	-0.55	-0.55	-0.41	-0.45	-0.44	-0.42
1989	-0.28	-0.51	-0.53	-0.43	-0.44	-0.44	-0.40
1990	-0.30	-0.53	-0.54	-0.41	-0.45	-0.44	-0.41
1991	-0.28	-0.52	-0.55	-0.41	-0.45	-0.44	-0.42
Avg	0.03	-0.16	-0.23	-0.15	-0.36	-0.40	-0.35

Old River @ Northern End of West Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.33	-0.50	-0.51	-0.39	-0.42	-0.42	-0.40
1977	-0.36	-0.51	-0.50	-0.40	-0.42	-0.42	-0.41
1978	0.40	0.41	0.16	-0.11	-0.34	-0.39	-0.35
1979	-0.14	-0.41	-0.46	-0.29	-0.39	-0.38	-0.38
1980	-0.09	-0.38	-0.04	-0.15	-0.30	-0.37	-0.34
1981	-0.30	-0.48	-0.49	-0.40	-0.43	-0.42	-0.40
1982	1.36	1.36	0.55	-0.01	-0.31	-0.33	-0.20
1983	0.88	0.88	0.86	1.52	0.20	-0.31	-0.09
1984	-0.20	-0.42	-0.47	-0.31	-0.38	-0.38	-0.36
1985	-0.30	-0.48	-0.49	-0.39	-0.42	-0.42	-0.39
1986	0.10	0.10	0.01	-0.10	-0.38	-0.38	-0.37
1987	-0.32	-0.49	-0.51	-0.40	-0.42	-0.42	-0.40
1988	-0.34	-0.50	-0.51	-0.40	-0.44	-0.42	-0.41
1989	-0.29	-0.46	-0.48	-0.41	-0.43	-0.42	-0.39
1990	-0.31	-0.48	-0.50	-0.40	-0.43	-0.43	-0.40
1991	-0.29	-0.47	-0.50	-0.40	-0.43	-0.43	-0.41
Avg	-0.03	-0.18	-0.24	-0.19	-0.36	-0.40	-0.36

Department of Water Resources, Delta Modeling Section

Table 4-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3E

Old River @ Highway 4

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.33	-0.43	-0.44	-0.37	-0.40	-0.40	-0.39
1977	-0.35	-0.44	-0.44	-0.37	-0.40	-0.40	-0.40
1978	-0.23	0.23	0.01	-0.18	-0.35	-0.38	-0.36
1979	-0.18	-0.35	-0.39	-0.30	-0.38	-0.37	-0.37
1980	-0.15	-0.32	-0.11	-0.21	-0.31	-0.36	-0.34
1981	-0.30	-0.41	-0.43	-0.38	-0.41	-0.40	-0.38
1982	-1.03	1.03	0.34	0.11	-0.32	-0.33	-0.24
1983	-0.64	0.64	0.59	1.00	0.04	-0.32	-0.15
1984	-0.23	-0.36	-0.41	-0.32	-0.37	-0.37	-0.36
1985	-0.31	-0.42	-0.42	-0.38	-0.40	-0.40	-0.38
1986	0.00	0.00	-0.07	-0.18	-0.37	-0.37	-0.36
1987	-0.32	-0.42	-0.44	-0.38	-0.40	-0.40	-0.39
1988	-0.33	-0.43	-0.44	-0.38	-0.41	-0.40	-0.39
1989	-0.29	-0.39	-0.42	-0.39	-0.41	-0.41	-0.38
1990	-0.31	-0.42	-0.43	-0.38	-0.41	-0.40	-0.39
1991	-0.30	-0.41	-0.44	-0.38	-0.41	-0.40	-0.39
Avg	-0.09	-0.18	-0.25	-0.23	-0.36	-0.38	-0.35

Middle River Upstream of Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.37	-0.49	-0.50	-0.41	-0.44	-0.44	-0.43
1977	-0.39	-0.50	-0.50	-0.42	-0.44	-0.44	-0.44
1978	0.27	0.27	0.04	-0.19	-0.38	-0.42	-0.39
1979	-0.21	-0.41	-0.45	-0.34	-0.42	-0.41	-0.41
1980	-0.16	-0.38	-0.12	-0.23	-0.35	-0.40	-0.39
1981	-0.34	-0.47	-0.49	-0.42	-0.45	-0.44	-0.43
1982	-1.15	1.35	0.40	-0.11	-0.36	-0.37	-0.27
1983	-0.70	0.70	0.67	1.23	0.08	-0.35	-0.17
1984	-0.26	-0.42	-0.46	-0.35	-0.41	-0.41	-0.40
1985	-0.35	-0.48	-0.48	-0.42	-0.45	-0.44	-0.42
1986	0.00	0.00	-0.07	-0.19	-0.41	-0.41	-0.40
1987	-0.36	-0.48	-0.50	-0.43	-0.45	-0.44	-0.43
1988	-0.38	-0.50	-0.50	-0.42	-0.45	-0.45	-0.44
1989	-0.33	-0.46	-0.48	-0.43	-0.45	-0.45	-0.43
1990	-0.35	-0.48	-0.49	-0.42	-0.45	-0.45	-0.43
1991	-0.33	-0.47	-0.50	-0.42	-0.45	-0.45	-0.44
Avg	-0.11	-0.21	-0.28	-0.25	-0.39	-0.42	-0.40

Department of Water Resources, Delta Modeling Section

Table 4-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3E

Middle River @ Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.36	-0.47	-0.48	-0.40	-0.43	-0.43	-0.42
1977	-0.37	-0.48	-0.47	-0.40	-0.43	-0.43	-0.43
1978	0.25	0.25	0.03	-0.18	-0.37	-0.40	-0.38
1979	-0.19	-0.38	-0.43	-0.32	-0.40	-0.40	-0.40
1980	-0.15	-0.36	-0.11	-0.22	-0.33	-0.39	-0.37
1981	-0.32	-0.45	-0.47	-0.41	-0.44	-0.43	-0.41
1982	1.12	1.12	0.37	-0.10	-0.34	-0.36	-0.26
1983	0.68	0.68	0.65	1.15	0.06	-0.34	-0.16
1984	-0.24	-0.40	-0.45	-0.34	-0.40	-0.39	-0.39
1985	-0.33	-0.46	-0.46	-0.41	-0.43	-0.43	-0.41
1986	0.00	0.00	-0.07	-0.18	-0.40	-0.39	-0.39
1987	-0.34	-0.46	-0.48	-0.41	-0.43	-0.43	-0.42
1988	-0.36	-0.47	-0.48	-0.41	-0.44	-0.43	-0.42
1989	-0.31	-0.43	-0.46	-0.42	-0.43	-0.43	-0.41
1990	-0.33	-0.46	-0.47	-0.41	-0.44	-0.43	-0.42
1991	-0.32	-0.45	-0.48	-0.41	-0.44	-0.43	-0.42
Avg	-0.10	-0.20	-0.27	-0.24	-0.38	-0.41	-0.38

SJR @ Brandt Bridge

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.11	1.01	0.77	-0.11	-0.18	-0.15	-0.08
1977	0.03	0.80	0.80	-0.13	-0.15	-0.16	-0.12
1978	3.80	3.80	2.96	1.43	0.21	0.00	0.16
1979	0.98	3.46	3.90	0.30	-0.01	-0.01	0.04
1980	1.19	3.97	1.58	1.35	0.37	0.02	0.14
1981	0.23	1.31	1.03	-0.05	-0.15	-0.14	-0.04
1982	7.10	7.10	4.59	2.07	0.30	0.21	0.85
1983	5.30	5.30	5.67	9.41	3.39	0.30	1.27
1984	0.54	2.18	2.30	0.16	0.00	0.02	0.07
1985	0.23	1.33	1.11	-0.04	-0.14	-0.13	-0.03
1986	2.27	2.27	1.98	1.66	0.00	0.01	0.04
1987	0.15	1.10	0.83	-0.12	-0.16	-0.15	-0.06
1988	0.09	0.98	0.81	-0.13	-0.21	-0.16	-0.12
1989	0.21	1.22	1.12	-0.14	-0.14	-0.15	-0.05
1990	0.18	1.19	1.08	-0.13	-0.20	-0.18	-0.08
1991	0.25	1.37	1.16	-0.13	-0.19	-0.18	-0.10
Avg	1.42	2.40	1.98	0.96	0.17	-0.05	0.12

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Table 4-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3E

Grant Line Canal @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.24	-0.63	-0.64	-0.36	-0.41	-0.38	-0.35
1977	-0.29	-0.64	-0.64	-0.37	-0.40	-0.39	-0.37
1978	1.28	1.28	0.88	0.27	-0.22	-0.31	-0.23
1979	0.14	-0.55	-0.59	-0.16	-0.32	-0.31	-0.29
1980	0.23	-0.52	0.38	0.23	-0.14	-0.29	-0.23
1981	-0.18	-0.61	-0.63	-0.34	-0.40	-0.39	-0.33
1982	-2.83	2.83	1.59	0.52	-0.17	-0.20	0.07
1983	2.01	2.01	2.09	3.63	1.03	-0.16	0.26
1984	-0.02	-0.56	-0.61	-0.22	-0.31	-0.30	-0.27
1985	-0.18	-0.62	-0.63	-0.34	-0.39	-0.38	-0.32
1986	0.67	0.67	0.53	0.35	-0.32	-0.30	-0.28
1987	-0.22	-0.63	-0.65	-0.37	-0.40	-0.39	-0.34
1988	-0.25	-0.64	-0.64	-0.37	-0.43	-0.40	-0.37
1989	-0.19	-0.60	-0.62	-0.39	-0.39	-0.39	-0.33
1990	-0.21	-0.62	-0.63	-0.38	-0.42	-0.40	-0.35
1991	-0.17	-0.61	-0.64	-0.38	-0.42	-0.40	-0.36
Avg	0.33	-0.03	-0.09	0.08	-0.26	-0.34	-0.26

Grant Line Canal @ West End

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.33	-0.54	-0.56	-0.40	-0.44	-0.43	-0.41
1977	-0.36	-0.55	-0.55	-0.41	-0.44	-0.43	-0.42
1978	0.58	0.58	0.29	-0.05	-0.33	-0.39	-0.34
1979	-0.09	-0.46	-0.51	-0.28	-0.39	-0.39	-0.37
1980	-0.04	-0.43	0.02	-0.09	-0.28	-0.37	-0.34
1981	-0.29	-0.53	-0.54	-0.40	-0.44	-0.43	-0.40
1982	1.69	1.69	0.77	0.07	-0.30	-0.32	-0.16
1983	1.12	1.12	1.12	2.02	0.36	-0.30	-0.03
1984	-0.18	-0.47	-0.52	-0.31	-0.39	-0.38	-0.36
1985	-0.29	-0.53	-0.54	-0.40	-0.44	-0.43	-0.39
1986	0.20	0.20	0.10	-0.03	-0.39	-0.38	-0.36
1987	-0.32	-0.54	-0.56	-0.41	-0.44	-0.43	-0.41
1988	-0.34	-0.55	-0.55	-0.41	-0.45	-0.44	-0.42
1989	-0.28	-0.51	-0.53	-0.43	-0.44	-0.44	-0.40
1990	-0.30	-0.53	-0.54	-0.41	-0.45	-0.44	-0.41
1991	-0.28	-0.52	-0.55	-0.41	-0.45	-0.44	-0.42
Avg	0.03	-0.16	-0.23	-0.15	-0.36	-0.40	-0.35

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Appendix 5

Alternative 3X

Delta Modeling Assumptions & Results

Figure 5-1
Alternative 3X

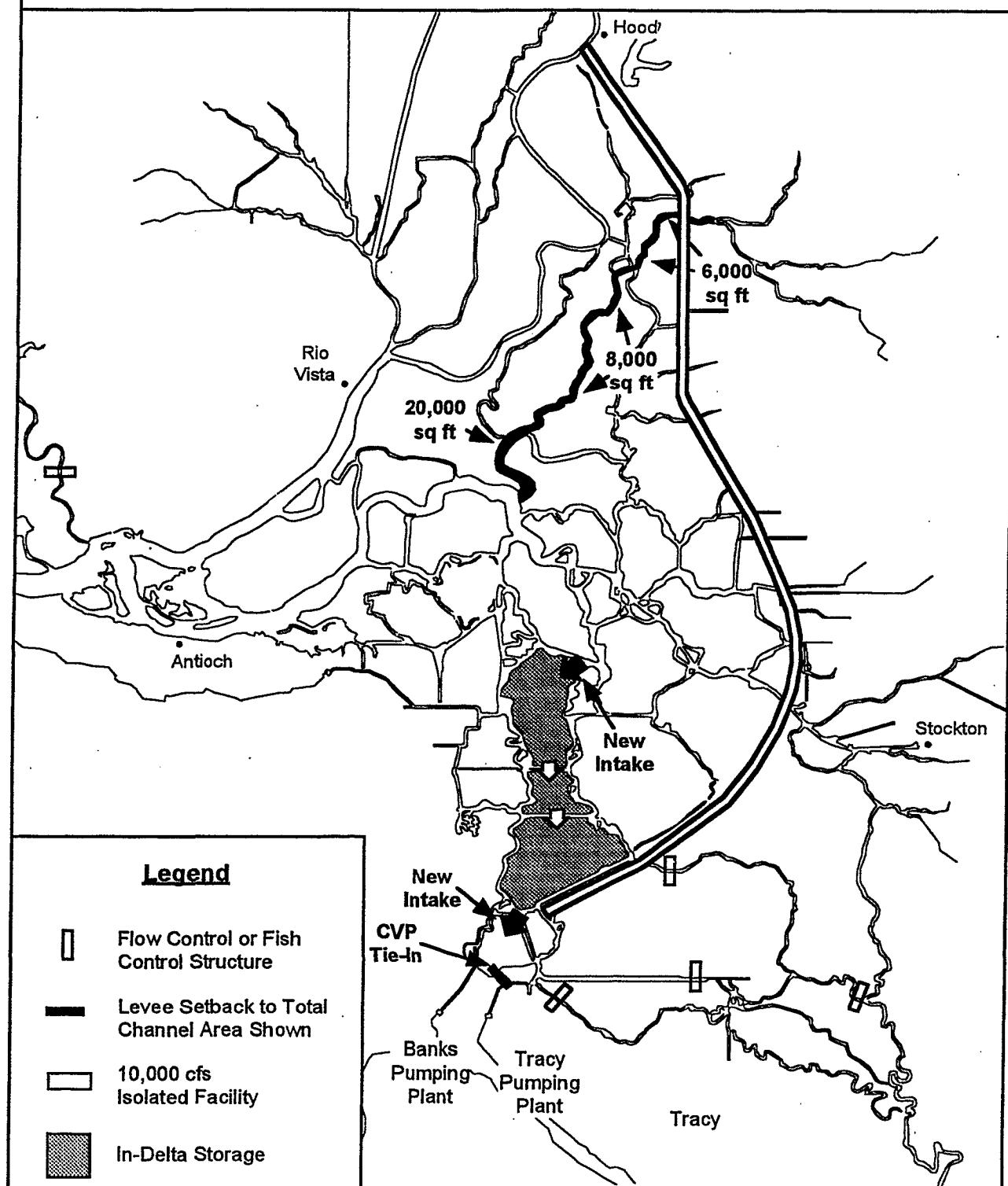


Table 5-1 (cont.)
Delta Hydrology for Alternative 3X (DWRSIM Study 567)
Water Years 1976 - 1991

(values in cfs)

Yolo Bypass Inflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	146	0	49	16	18	163	118	81	67	49	407	168
1977	49	34	49	65	54	146	168	537	67	146	81	34
1978	49	202	764	14,182	6,842	16,800	1,042	49	67	244	81	50
1979	65	118	33	797	648	228	50	65	67	114	49	50
1980	65	101	1,057	31,177	43,629	15,044	50	211	286	211	211	50
1981	65	34	146	488	594	195	50	65	101	98	81	50
1982	33	3,260	23,224	20,736	22,111	5,139	36,569	293	67	65	49	17
1983	130	1,613	10,571	20,866	58,628	113,532	15,444	3,058	840	49	49	50
1984	33	5,428	46,562	14,979	882	553	118	81	67	49	49	50
1985	1,382	1,109	49	146	216	65	50	65	67	49	49	50
1986	49	303	683	49	88,770	55,117	1,025	65	67	49	49	50
1987	65	34	98	146	288	423	84	81	67	49	49	50
1988	33	118	488	1,236	108	65	84	65	50	49	49	50
1989	65	84	228	81	90	537	101	81	67	49	49	17
1990	16	50	33	325	756	33	168	49	67	49	49	50
1991	65	0	65	33	126	748	50	65	67	49	49	50

Contra Costa Canal Diversion

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	220	187	148	120	103	197	0	145	249	164	168	279
1977	241	66	49	115	162	197	180	241	249	324	273	279
1978	241	193	177	143	162	99	111	220	281	511	538	464
1979	413	183	172	120	103	200	0	0	474	329	356	264
1980	236	183	146	120	63	99	0	220	418	327	355	264
1981	236	188	146	120	103	99	0	0	430	332	356	264
1982	236	185	145	120	103	34	0	220	479	327	355	264
1983	233	185	145	120	103	99	0	220	410	329	356	279
1984	223	143	181	122	104	99	0	0	435	329	356	281
1985	224	183	145	120	103	99	0	220	434	330	356	264
1986	237	150	145	120	56	150	0	220	420	327	355	264
1987	234	183	145	120	103	99	0	0	437	329	338	264
1988	96	71	99	120	103	99	0	220	281	153	231	103
1989	213	183	145	120	103	99	111	220	481	511	538	264
1990	213	183	145	120	103	197	0	241	249	250	233	166
1991	184	193	177	143	162	197	180	241	249	324	273	279

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Table 5-1 (cont.)
Delta Hydrology for Alternative 3X (DWRSIM Study 567)
Water Years 1976 - 1991

(values in cfs)

Banks Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	8,962	8,334	7,353	5,767	6,775	6,895	6,046	1,008	7,445	7,471	4,256	2,411
1977	4,215	4,113	4,049	10,169	10,209	8,918	732	413	488	894	675	688
1978	971	1,573	7,738	10,161	10,249	10,190	10,292	1,008	7,231	7,223	7,363	7,663
1979	9,020	6,339	4,656	10,300	7,880	7,364	7,307	1,008	7,301	7,301	8,588	3,452
1980	5,363	7,376	10,300	10,074	7,583	7,636	5,321	1,008	7,304	6,961	3,250	5,713
1981	7,023	3,449	8,933	10,300	7,389	6,867	6,603	1,008	7,339	7,346	6,605	2,444
1982	5,351	10,300	10,300	9,145	7,320	7,179	7,255	1,008	10,300	6,511	5,196	10,300
1983	10,019	9,531	7,325	4,053	4,426	4,337	5,647	1,008	9,026	8,307	9,273	7,633
1984	5,292	4,662	4,302	4,404	5,479	5,766	5,607	1,008	7,228	5,774	3,108	5,969
1985	7,726	10,300	10,300	8,309	6,493	6,538	5,540	1,008	7,283	5,746	3,076	2,331
1986	3,969	4,523	9,628	10,230	10,200	5,727	6,240	1,008	7,397	7,415	4,225	5,327
1987	6,578	3,455	6,952	10,300	7,423	7,407	5,937	1,008	7,418	7,438	3,757	2,245
1988	4,128	4,013	10,300	10,019	7,178	8,272	7,913	1,008	7,459	7,365	830	734
1989	681	3,565	3,720	4,879	867	10,271	9,409	1,008	7,336	8,661	9,393	4,874
1990	3,047	963	766	10,275	8,763	3,557	4,034	1,008	725	599	897	1,467
1991	746	793	1,354	1,607	413	10,229	3,403	1,008	147	151	550	2,775

Tracy Pumping

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3,457	1,775	1,830	887	1,254	2,072	2,963	1,752	1,830	1,038	1,922	2,695
1977	2,231	1,633	1,586	2,144	150	229	288	29	42	674	2,786	1,959
1978	675	1,225	4,112	1,308	1,174	1,979	3,139	3,749	4,600	959	4,528	4,526
1979	4,391	4,290	4,207	4,207	4,240	3,079	4,499	3,991	1,789	4,599	4,599	4,473
1980	4,360	4,275	4,207	4,207	935	1,732	2,721	3,255	4,600	3,541	4,599	4,474
1981	4,360	4,275	4,207	2,771	1,465	2,892	4,222	2,978	3,028	4,599	4,599	4,440
1982	3,516	4,266	4,207	4,207	1,198	2,890	2,824	3,534	4,600	4,599	4,599	4,505
1983	4,379	4,284	2,751	1,216	1,236	1,852	2,926	3,494	4,600	4,599	4,599	3,211
1984	1,310	1,575	2,707	1,200	1,383	3,147	4,600	3,991	2,036	4,552	4,599	4,494
1985	4,372	4,281	4,207	4,207	1,583	2,890	4,217	2,994	3,028	4,599	4,599	3,274
1986	2,697	2,410	4,207	4,207	4,230	2,362	1,955	2,360	3,486	922	4,599	4,381
1987	4,305	4,251	2,729	950	899	1,976	3,372	2,977	3,032	4,599	1,446	1,948
1988	1,894	2,219	4,207	4,207	1,030	1,733	2,429	993	1,042	970	2,565	1,929
1989	1,827	2,805	3,182	4,207	765	4,225	4,098	2,995	3,030	4,599	4,208	4,388
1990	3,242	2,050	2,208	4,207	2,548	3,135	2,899	1,604	1,676	952	2,462	3,354
1991	2,214	1,597	1,573	1,714	227	4,225	2,395	2,348	667	1,804	3,436	2,538

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Table 5-1 (cont.)
Delta Hydrology for Alternative 3X (DWRSIM Study 567)
Water Years 1976 - 1991

(values in cfs)

Delta Channel Depletions

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	732	874	943	49	414	1,382	1,681	3,285	4,151	4,229	1,903	1,328
1977	1,236	807	862	-114	504	1,008	2,185	1,610	4,134	4,294	2,667	1,294
1978	1,269	689	146	-5,009	-1,891	-1,610	420	2,342	4,117	4,229	2,830	1,513
1979	1,382	622	894	-2,179	-2,557	179	1,227	2,374	4,302	4,115	2,618	1,748
1980	862	723	-33	-2,700	-3,601	309	1,210	2,000	3,697	3,773	2,618	1,563
1981	1,334	891	748	-732	198	-293	1,580	2,488	4,453	4,342	2,830	1,513
1982	846	101	-520	-4,407	-612	-2,911	34	2,342	3,512	4,050	2,667	924
1983	781	-1,126	-829	-4,733	-3,547	-4,635	-50	1,968	4,033	4,050	2,732	1,395
1984	1,203	-17	-2,017	-146	-162	748	1,529	2,716	4,033	4,294	2,749	1,815
1985	813	-437	33	-504	36	-374	1,714	2,797	4,285	4,180	2,618	1,344
1986	1,122	387	49	-1,480	-5,906	-1,269	1,193	2,293	4,067	4,163	2,879	1,227
1987	1,301	908	829	-179	-378	-114	2,000	2,862	4,067	3,936	2,765	1,714
1988	1,171	672	276	-1,447	342	1,041	1,496	2,196	3,764	4,700	2,879	1,748
1989	1,334	672	618	-114	90	0	1,933	2,716	3,949	4,521	2,749	840
1990	976	756	927	-455	-270	992	1,899	1,155	4,201	4,456	2,830	1,714
1991	1,236	874	813	49	396	-504	1,529	2,049	3,210	4,391	2,700	1,832

Net Delta Outflow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	12,404	9,528	9,213	11,959	14,526	10,519	7,001	6,337	6,897	4,703	5,935	3,829
1977	5,427	5,770	5,201	4,500	6,950	6,310	7,100	6,939	6,897	4,568	5,460	3,445
1978	3,646	4,921	4,849	52,406	41,632	65,318	38,280	20,563	10,649	8,000	5,295	3,812
1979	5,339	7,132	6,694	11,214	39,223	31,225	16,084	12,097	11,159	6,500	4,180	4,372
1980	6,787	5,878	4,500	92,673	130,723	54,543	15,838	18,860	9,229	8,586	7,184	5,750
1981	8,105	6,800	4,657	11,320	21,470	25,639	9,521	10,206	5,349	5,000	5,279	3,962
1982	6,018	20,351	75,121	70,545	99,316	88,425	142,578	53,140	15,272	8,359	8,550	7,370
1983	20,816	40,932	85,479	113,242	189,081	254,588	102,800	80,274	79,446	22,079	7,319	23,440
1984	25,126	83,698	156,763	74,230	42,963	35,680	16,248	13,016	10,041	8,000	6,852	4,852
1985	4,920	22,293	5,685	6,000	15,185	14,690	8,481	11,087	5,641	5,000	5,609	4,076
1986	5,833	6,932	4,500	6,000	223,850	149,494	22,578	19,135	8,462	8,000	6,885	5,109
1987	7,379	6,460	6,667	4,500	14,552	22,585	10,270	8,341	5,468	5,000	5,469	3,729
1988	5,778	6,548	4,500	7,778	11,400	7,964	6,791	6,682	6,897	4,205	5,395	3,549
1989	3,707	5,064	5,326	4,500	8,089	27,863	10,910	11,400	5,567	5,000	3,500	4,343
1990	5,217	6,000	5,710	4,500	11,400	6,758	9,905	5,795	7,001	4,357	5,359	3,738
1991	3,859	4,612	4,656	4,500	8,146	13,312	11,198	5,975	6,158	4,339	5,364	3,412

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Table 5-2
Operation of Delta Facilities
under
Alternative 3X

Delta Cross Channel

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	X	X	X	X	X	X	X	X	X	O	O	X
1977	X	X	X	X	X	X	X	X	X	O	O	X
1978	X	X	X	X	X	X	X	X	X	O	O	X
1979	X	X	X	X	X	X	X	X	X	O	O	X
1980	X	X	X	X	X	X	X	X	X	O	O	X
1981	X	X	X	X	X	X	X	X	X	O	O	X
1982	X	X	X	X	X	X	X	X	X	O	O	X
1983	X	X	X	X	X	X	X	X	X	O	O	X
1984	X	X	X	X	X	X	X	X	X	O	O	X
1985	X	X	X	X	X	X	X	X	X	O	O	X
1986	X	X	X	X	X	X	X	X	X	O	O	X
1987	X	X	X	X	X	X	X	X	X	O	O	X
1988	X	X	X	X	X	X	X	X	X	O	O	X
1989	X	X	X	X	X	X	X	X	X	O	O	X
1990	X	X	X	X	X	X	X	X	X	O	O	X
1991	X	X	X	X	X	X	X	X	X	O	O	X

Note: 'X' denotes gates closed, 'O' denotes gates open.

Suisun Marsh Salinity Control Gates

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	O	O	O	O	O	O	O	O	N	N	N	N
1977	O	O	O	O	O	O	O	O	N	N	N	N
1978	N	N	N	N	N	N	N	N	N	N	N	N
1979	O	O	O	O	O	O	O	O	N	N	N	N
1980	N	N	N	N	N	N	N	N	N	N	N	N
1981	O	O	O	O	O	O	O	O	N	N	N	N
1982	N	N	N	N	N	N	N	N	N	N	N	N
1983	N	N	N	N	N	N	N	N	N	N	N	N
1984	N	N	N	N	N	N	N	N	N	N	N	N
1985	O	O	O	O	O	O	O	O	N	N	N	N
1986	N	N	N	N	N	N	N	N	N	N	N	N
1987	O	O	O	O	O	O	O	O	N	N	N	N
1988	O	O	O	O	O	O	O	O	N	N	N	N
1989	O	O	O	O	O	O	O	O	N	N	N	N
1990	O	O	O	O	O	O	O	O	N	N	N	N
1991	O	O	O	O	O	O	O	O	N	N	N	N

Note: 'N' denotes gates not operating, 'O' denotes gates are operating.

Table 5-2 (cont.)
Operation of Delta Facilities
under
Alternative 3X

South Delta Flow Control Structures

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-31)	May	Jun	Jul	Aug	Sep
1976	2	0	0	0	0	0	2	2	2	3B	3A	3A	3B
1977	2	0	0	0	0	0	2	2	2	3A	3B	3A	3A
1978	2	0	0	0	0	0	2	2	2	3C	3C	3B	3C
1979	2	0	0	0	0	0	2	2	2	3C	3B	3B	3B
1980	2	0	0	0	0	0	2	2	2	3C	3C	3B	3B
1981	2	0	0	0	0	0	2	2	2	3B	3B	3A	3B
1982	2	0	0	0	0	0	0	0	2	3C	3C	3C	3C
1983	2	0	0	0	0	0	0	0	0	0	3C	3C	3C
1984	2	0	0	0	0	0	2	2	2	3B	3B	3B	3B
1985	2	0	0	0	0	0	2	2	2	3B	3B	3A	3B
1986	2	0	0	0	0	0	2	2	2	3C	3B	3B	3B
1987	1	0	0	0	0	0	2	2	2	3B	1A	1A	3B
1988	2	0	0	0	0	0	2	2	2	3A	3A	3A	3A
1989	2	0	0	0	0	0	2	2	2	3A	3B	3A	3B
1990	2	0	0	0	0	0	2	2	2	3A	3A	3A	3B
1991	2	0	0	0	0	0	2	2	2	3A	3A	3A	3A

Note: '0' denotes no structures operating, '2' denotes Old River, Middle River operating, '3' series denote all three structures operating: 'A' - GLC with special operation, 'B' - GLC and Old R with special operation, 'C' - GLC, Old River, and Middle River structures with special operation.

Head of Old River Fish Control Structure

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-31)	May	Jun	Jul	Aug	Sep
1976	O	O	N	N	N	N	N	O	O	N	N	N	N
1977	O	O	N	N	N	N	N	O	O	N	N	N	N
1978	O	O	N	N	N	N	N	N	N	N	N	N	N
1979	O	O	N	N	N	N	N	O	O	N	N	N	N
1980	O	O	N	N	N	N	N	O	N	N	N	N	N
1981	O	O	N	N	N	N	N	O	O	N	N	N	N
1982	O	O	N	N	N	N	N	N	N	N	N	N	N
1983	N	N	N	N	N	N	N	N	N	N	N	N	N
1984	O	N	N	N	N	N	N	O	O	N	N	N	N
1985	O	O	N	N	N	N	N	O	O	N	N	N	N
1986	O	O	N	N	N	N	N	N	N	N	N	N	N
1987	O	O	N	N	N	N	N	O	O	N	N	N	N
1988	O	O	N	N	N	N	N	O	O	N	N	N	N
1989	O	O	N	N	N	N	N	O	O	N	N	N	N
1990	O	O	N	N	N	N	N	O	O	N	N	N	N
1991	O	O	N	N	N	N	N	O	O	N	N	N	N

Note: 'N' denotes gates not operating, 'O' denotes gates are operating to make complete closure.

Table 5-2 (cont.)
Operation of Delta Facilities
under
Alternative 3X

Clifton Court Forebay Intake Gate Priority

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3	4	4	4	4	4	3	2	2	3	3	3
1977	3	4	4	4	4	4	3	2	2	3	3	3
1978	3	4	4	4	4	4	3	2	2	3	3	3
1979	3	4	4	4	4	4	3	2	2	3	3	3
1980	3	4	4	4	4	4	3	2	2	3	3	3
1981	3	4	4	4	4	4	3	2	2	3	3	3
1982	3	4	4	4	4	4	3	2	2	3	3	3
1983	3	4	4	4	4	4	3	2	2	3	3	3
1984	3	4	4	4	4	4	3	2	2	3	3	3
1985	3	4	4	4	4	4	3	2	2	3	3	3
1986	3	4	4	4	4	4	3	2	2	3	3	3
1987	3	4	4	4	4	4	3	2	2	3	3	3
1988	3	4	4	4	4	4	3	2	2	3	3	3
1989	3	4	4	4	4	4	3	2	2	3	3	3
1990	3	4	4	4	4	4	3	2	2	3	3	3
1991	3	4	4	4	4	4	3	2	2	3	3	3

Note: See Figure 7 for description of the values.

Monthly Average Diversion into Clifton Court Forebay (cfs)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	2,423	1,008	1,008	1,008	1,008	992	17	16	17	1,008	992	1,008
1977	1,008	1,008	992	2,309	1,008	1,008	17	16	17	1,008	1,008	1,008
1978	1,008	1,008	1,854	1,464	1,422	2,163	3,428	16	168	992	1,887	2,185
1979	3,415	1,008	992	4,505	2,125	1,008	17	0	17	1,903	3,188	1,008
1980	1,008	1,647	4,505	4,277	1,008	1,008	17	16	1,395	1,008	992	1,008
1981	1,382	1,008	3,139	3,074	1,008	1,008	17	0	17	1,952	1,203	1,008
1982	1,008	4,571	4,505	3,350	1,008	1,008	84	16	4,907	992	992	4,805
1983	4,391	3,815	1,008	1,008	1,008	992	17	16	3,630	2,911	3,871	1,008
1984	992	1,008	1,008	1,008	1,008	1,008	17	0	17	1,008	992	1,008
1985	2,098	4,588	4,505	2,521	1,008	1,008	17	16	319	992	992	1,008
1986	1,008	1,008	3,838	4,440	4,429	1,008	17	16	387	992	1,008	1,008
1987	1,008	1,008	1,008	1,252	1,008	1,008	17	0	454	2,033	992	1,008
1988	1,008	1,008	4,505	4,228	1,008	992	336	16	17	992	992	1,008
1989	1,008	1,008	1,008	1,008	1,008	4,505	3,512	16	370	3,269	3,594	1,008
1990	992	1,008	1,008	4,489	1,314	1,008	17	16	17	992	992	1,008
1991	992	1,008	1,008	1,008	648	4,456	17	16	17	992	1,008	1,008

Note: Alternative 3X assumes 1,000 cfs minimum diversion in forebay from Oct-Mar, Jul-Sep

Table 5-2 (cont.)
Operation of Delta Facilities
under
Alternative 3X

Monthly Average Flow Diverted from Delta Channels to In-Delta Storage

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3,236	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	1,603	0	0	0	0
1979	0	0	0	3,236	0	0	0	1,334	0	0	0	0
1980	0	0	1,871	0	0	1,365	0	0	0	0	0	0
1981	0	0	0	3,236	0	0	0	0	0	0	0	0
1982	0	1,344	0	0	0	0	0	0	0	0	0	3,241
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	889	0	0	0	0
1985	0	0	323	0	0	2,914	0	0	0	0	0	0
1986	0	0	0	2,502	0	0	759	0	0	0	0	0
1987	0	0	0	0	0	3,236	0	0	0	0	0	0
1988	0	0	0	3,236	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	2,576	0	0	0	0	0	0

Monthly Average Flow From In-Delta Storage to Clifton Court Forebay

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0	0	0	0	0	0	3,191	148	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	1,657	0	0	0
1979	0	0	0	0	0	0	3,344	0	1,378	0	0	0
1980	0	0	0	0	0	0	0	0	514	2,739	0	0
1981	0	0	0	0	0	0	1,543	1,008	759	0	0	0
1982	0	0	0	0	0	0	0	0	0	3,137	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	2,783	0	1,480	0	0	0
1985	0	0	0	0	0	0	2,680	643	0	0	0	0
1986	0	0	0	0	0	0	0	0	493	2,759	0	0
1987	0	0	0	0	0	0	3,344	0	0	0	0	0
1988	0	0	0	0	3,583	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	147	151	550
1991	0	0	0	0	0	0	0	0	0	0	0	1,791

Table 5-2 (cont.)
Operation of Delta Facilities
under
Alternative 3X

Monthly Average Flow in Isolated Facility

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	9,999	9,109	8,182	5,655	7,027	7,966	5,801	2,596	9,259	7,509	5,178	4,106
1977	5,446	4,746	4,635	9,999	9,358	8,147	1,003	426	513	568	2,460	1,648
1978	646	1,798	9,999	9,999	10,001	9,999	9,999	4,741	9,999	7,182	9,999	9,999
1979	9,999	9,628	7,863	9,999	10,001	9,443	8,445	4,999	7,695	9,999	9,999	6,925
1980	8,722	9,999	9,999	9,999	7,516	8,368	8,025	4,247	9,999	6,762	6,849	9,187
1981	9,999	6,724	9,999	9,999	7,853	8,759	9,265	2,978	9,592	9,999	9,999	5,884
1982	1,867	9,999	9,999	9,999	7,517	9,068	9,999	4,526	9,999	6,974	8,796	9,999
1983	9,999	9,999	9,076	4,269	4,661	3,189	8,556	4,486	9,999	9,999	9,999	9,845
1984	5,602	5,236	6,008	4,604	5,861	7,913	7,407	4,999	7,767	9,326	6,707	9,462
1985	9,999	9,999	9,999	9,999	7,075	8,428	7,060	3,344	9,999	9,345	6,675	4,605
1986	5,666	5,933	9,999	9,999	10,001	7,090	8,178	3,352	9,999	4,377	7,824	8,708
1987	9,883	6,705	8,681	9,999	7,321	8,383	5,948	1,986	9,999	9,999	4,202	3,191
1988	5,022	5,233	9,999	9,999	3,624	9,005	9,999	1,985	8,485	7,335	2,395	1,663
1989	1,508	5,370	5,902	8,086	631	9,999	9,999	3,987	9,999	9,999	9,999	8,262
1990	3,288	2,013	1,974	9,999	10,001	1,691	6,917	2,596	2,385	551	2,359	3,821
1991	1,960	1,390	1,927	2,321	0	9,999	5,781	3,340	650	893	2,436	2,522

Figure 5-2

Output Locations for Average Flows
(Arrows show sign convention for positive flow)

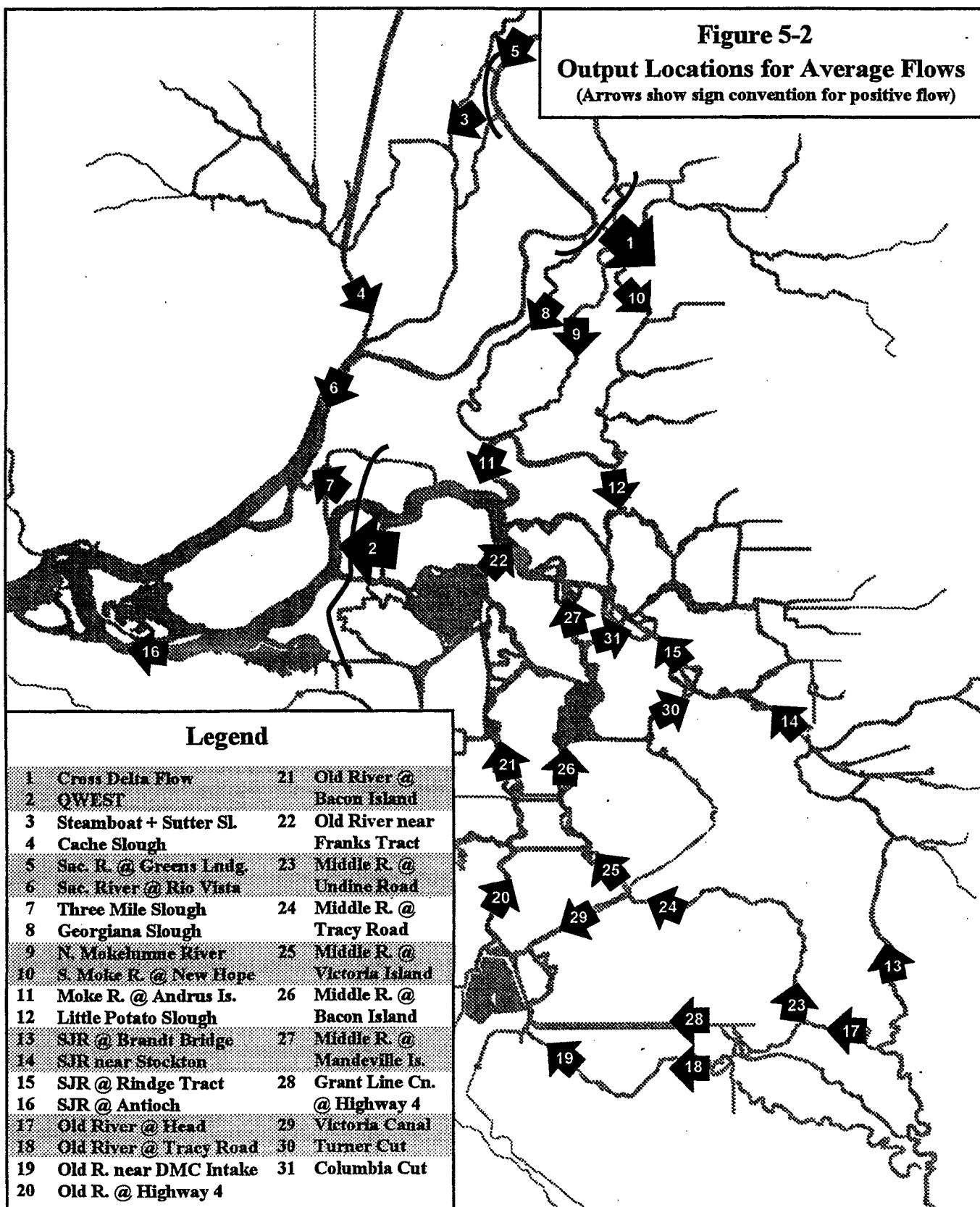


Table 5-3
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Cross Delta Flow

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2272	1519	1452	1867	2090	1667	1057	1058	1430	1575	4329	3709	915
1977	887	995	1009	951	1205	1169	1378	1378	1262	1867	4373	4075	992
1978	1037	1047	790	3367	3016	3794	2602	2602	1397	825	4628	4040	844
1979	1022	1031	1108	1852	3133	2688	1379	1388	1237	1842	4984	4122	888
1980	978	1078	1362	4819	5909	3026	1182	1191	1526	612	3828	3763	788
1981	919	1138	1110	2199	2610	2813	1153	1154	1737	1314	4898	4031	913
1982	1030	3058	5459	3908	5424	5885	6264	6263	3330	1615	3964	3721	1551
1983	2362	3365	4751	5458	7573	7677	5914	5914	4825	4287	4573	4185	2189
1984	2555	5777	7506	4424	3409	3279	1794	1797	1697	1670	4989	3928	821
1985	796	2931	1382	985	1948	2255	1041	1042	1896	1386	4369	4033	920
1986	1095	1110	1043	1521	8886	5937	1316	1316	1382	244	4990	3923	804
1987	942	1152	1067	628	1922	2964	1575	1576	1575	1464	4853	4122	975
1988	1118	1175	1255	1973	1936	1396	973	974	1340	1579	4430	4157	1007
1989	1021	999	953	756	1502	3411	2105	2104	1885	1438	5651	4572	836
1990	1125	1286	1298	1269	1625	1280	1399	1401	848	1827	4449	4136	957
1991	998	1110	1075	920	1533	2406	1580	1581	986	1615	4452	4080	994
Avg	1260	1798	2039	2306	3358	3228	2045	2046	1772	1573	4610	4037	1025

QWEST

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	65	1960	2063	2653	3202	2114	2231	2244	1063	-345	1247	2226	213
1977	1886	1728	1183	23	949	765	1567	1569	1858	-199	1226	1910	-159
1978	218	937	343	9876	11558	15733	16966	16967	12050	6134	3556	1681	86
1979	697	1909	1597	-288	11887	11096	7699	7725	5834	2032	1949	659	658
1980	2169	693	-2752	16755	30290	16357	8477	8490	10035	5753	4752	3372	1941
1981	3403	1726	-501	-1166	4541	5864	3409	3428	2552	-429	780	1656	255
1982	1432	-2823	4349	14310	25972	26074	45414	45420	24277	6146	4516	4620	-344
1983	6340	10773	28860	37570	54980	65111	31787	31785	32499	39181	15305	3022	9093
1984	8856	23232	37050	20183	13943	9781	6096	6110	4590	1899	3162	3107	1075
1985	284	1082	-1044	876	4176	1572	3336	3354	2460	-542	1366	2007	420
1986	1347	1573	-1051	-1809	45790	37600	12588	12588	11249	7316	3317	3136	1385
1987	2682	1400	1585	1366	3515	1984	2730	2740	1667	-1070	842	1926	106
1988	1261	1319	-2085	-3345	2178	1159	1855	1862	1526	-265	844	1884	-46
1989	236	833	897	1043	1869	1702	-9	-10	2649	-884	78	-375	550
1990	713	1006	835	-1766	1811	1223	2917	2932	2439	-187	1034	1847	106
1991	374	662	654	950	1770	-1382	3432	3445	2040	4	1022	1824	-183
Avg	1998	3001	4499	6077	13652	12297	9406	9416	7424	4034	2812	2156	947

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Steamboat & Sutter Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	6777	4194	3919	4987	6097	4553	2605	2605	3241	4404	2477	2065	1980
1977	2041	2236	2211	2236	3128	2891	3016	3016	2698	4375	2454	2303	2015
1978	1977	2088	1749	14112	12446	17589	11054	11054	4757	2878	2928	2306	2102
1979	2607	2753	2797	4725	13710	10685	4538	4535	3490	5482	3085	2250	2123
1980	2545	2749	2998	23511	30576	12757	3976	3973	4828	2110	2500	2309	2135
1981	2641	2802	2698	6092	9029	10711	3382	3382	4352	3633	2916	2307	2078
1982	2544	10944	26815	18053	28178	31112	34010	34010	16560	5331	2603	2445	4256
1983	7962	14992	24689	28999	41576	40574	31559	31559	25625	23061	4266	2668	7983
1984	9224	30435	40628	21959	15768	14467	5527	5526	4742	4886	3284	2370	2146
1985	1795	10768	3378	2423	5662	6742	2822	2822	4964	3853	2549	2298	2043
1986	2540	2577	2297	3547	48242	31032	4920	4920	4455	1024	3202	2403	2078
1987	2628	2799	2758	1384	5465	11246	4204	4204	3851	4022	2861	2328	2091
1988	2562	2705	2863	4774	4951	3712	2653	2652	2987	4333	2517	2344	2077
1989	1993	2180	2088	1631	3230	14415	6042	6043	5040	3963	3449	2489	2018
1990	2530	2710	2724	2865	4399	3032	3807	3806	1888	4462	2508	2326	2073
1991	1972	2212	2156	1788	3290	6951	4283	4283	2237	3608	2481	2307	2068
Avg	3396	6197	7923	8943	14734	13904	8025	8024	5982	5089	2880	2345	2579

Cache Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1927	1035	1008	1380	1638	1210	543	542	470	669	80	618	410
1977	364	506	519	655	832	802	659	659	944	686	191	282	357
1978	391	673	1273	19455	10673	22271	4065	4064	994	234	446	259	325
1979	541	756	668	2602	5140	3243	1112	1111	762	983	376	244	311
1980	615	731	1994	38398	53120	18500	928	927	1245	281	340	422	336
1981	560	668	777	2366	3091	3248	703	703	989	465	289	262	343
1982	579	6369	31006	26658	30182	14711	46256	46255	4648	1022	197	291	1020
1983	2244	6135	17708	29843	71040	125568	24319	24319	10034	6811	664	346	2045
1984	2444	14105	58480	21191	5372	4575	1405	1406	1074	863	372	283	329
1985	1718	4334	1015	873	1801	2064	571	571	1044	517	172	276	373
1986	567	955	1400	1372	103379	64143	2143	2143	944	916	-299	351	249
1987	552	650	724	484	1845	3605	944	944	783	555	229	210	286
1988	531	748	1282	2964	1432	929	530	530	514	667	36	226	294
1989	381	570	709	519	965	4716	1508	1507	1061	547	334	275	388
1990	558	687	659	1266	2188	755	918	918	294	668	98	251	328
1991	417	485	560	531	1005	3040	1047	1047	390	667	123	276	321
Avg	899	2463	7486	9410	18356	17086	5478	5478	1635	959	269	298	490

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	14774	9407	8838	11169	13408	10211	6049	6050	7550	9896	8860	7485	4761
1977	4852	5296	5262	5303	7176	6690	7061	7062	6362	10013	8716	8204	4878
1978	4837	5050	4249	28350	25012	34748	22317	22317	10351	6425	9960	8309	4953
1979	6038	6316	6455	10798	27283	21769	9938	9939	7853	12113	10546	8268	5022
1980	5882	6349	7094	45991	59059	25534	8724	8725	10578	4794	8482	8038	4967
1981	6018	6484	6277	13540	18979	21909	7595	7597	9852	8252	10178	8302	4950
1982	5919	22476	52169	35721	54476	60000	65094	65095	32468	11644	8800	8286	9557
1983	16943	29705	47949	56020	78910	77219	60649	60648	49614	44755	12344	9095	16857
1984	19270	58632	77276	42902	31095	28629	12106	12106	10562	10866	10913	8295	5022
1985	4332	22085	7789	5690	12493	14731	6448	6448	11126	8719	9062	8243	4880
1986	5956	6039	5519	8295	91045	59738	10600	10601	9762	2454	10725	8367	4866
1987	6014	6489	6351	3439	12110	22879	9467	9467	8808	9090	10014	8327	5016
1988	6012	6324	6712	10962	11136	8417	6084	6084	6983	9756	9022	8350	5012
1989	4854	5197	4990	4000	7550	28682	13317	13317	11275	8953	11721	9085	4775
1990	5956	6406	6442	6775	9945	7026	8585	8585	4516	10157	8892	8296	4972
1991	4797	5329	5199	4408	7692	15304	9613	9613	5299	8366	8842	8216	4990
Avg	7653	12974	16161	18335	29211	27718	16478	16478	12685	11016	9817	8323	5967

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	12404	7629	7162	9242	11157	8330	4674	4673	5392	7414	3588	3670	3573
1977	3625	4073	4036	4379	5854	5421	5335	5334	5154	7286	3512	3550	3561
1978	3513	3999	4186	41126	29333	48534	20592	20593	8431	4742	4610	3661	3716
1979	4692	5179	5111	10491	25702	19270	8305	8297	6224	9386	4731	3554	3700
1980	4707	5129	6895	73262	98042	37437	7260	7251	8782	3634	3985	3847	3787
1981	4789	5111	5079	12024	16856	19279	6075	6075	7679	6040	4390	3668	3667
1982	4654	22614	70186	53845	71302	60336	95483	95480	28859	9279	3972	3965	7709
1983	14454	28192	53919	72596	131120	184401	70091	70092	47368	40412	6897	4290	14305
1984	16406	58221	116977	53422	28542	25690	10034	10032	8386	8366	5020	3766	3768
1985	4664	20367	6465	4962	10745	12693	5069	5069	8664	6451	3810	3635	3639
1986	4596	5082	5194	7313	172769	109388	9944	9944	7864	1369	4839	3800	3731
1987	4752	5087	5120	2926	10489	20305	7505	7504	6686	6731	4279	3549	3593
1988	4581	5038	5860	10771	9167	6789	4785	4783	5125	7330	3565	3528	3561
1989	3529	4059	4065	3322	6079	25840	10878	10879	8797	6648	5081	3874	3677
1990	4567	4937	4908	6023	9334	5564	6895	6893	3311	7411	3483	3530	3608
1991	3539	3972	3970	3503	6147	14042	7743	7742	3915	6226	3481	3551	3584
Avg	6217	11793	19321	23075	40165	37707	17542	17540	10665	8670	4328	3715	4574

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Three Mile Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-2082	-1577	-1538	-1531	-1546	-1590	-1377	-1371	-1594	-1987	-1443	-1265	-1663
1977	-1368	-1416	-1508	-1707	-1652	-1655	-1503	-1498	-1437	-1906	-1434	-1313	-1712
1978	-1642	-1551	-1682	-1535	-892	-844	-266	-266	-20	-824	-1131	-1371	-1697
1979	-1608	-1459	-1510	-2025	-684	-633	-697	-685	-869	-1695	-1389	-1518	-1611
1980	-1405	-1670	-2278	-1555	-318	-425	-538	-527	-349	-798	-902	-1109	-1414
1981	-1195	-1476	-1829	-2262	-1575	-1452	-1277	-1271	-1463	-1936	-1559	-1380	-1665
1982	-1518	-2939	-3447	-1231	-8	-429	-2240	-2241	-1136	-1007	-944	-921	-1951
1983	-1194	-959	-1073	-1851	-2178	-202	-984	-984	-1845	-3133	-641	-1169	-777
1984	-880	32	-67	-303	-481	-1058	-1052	-1045	-1201	-1667	-1216	-1150	-1556
1985	-1656	-2220	-1975	-1595	-1364	-1872	-1225	-1219	-1531	-1972	-1448	-1313	-1634
1986	-1521	-1508	-1926	-2150	-2383	-383	-5	-5	-107	-462	-1169	-1151	-1496
1987	-1314	-1527	-1515	-1426	-1455	-2096	-1444	-1437	-1562	-2066	-1534	-1316	-1681
1988	-1512	-1528	-2107	-2530	-1592	-1670	-1460	-1452	-1501	-1955	-1510	-1318	-1698
1989	-1619	-1558	-1553	-1495	-1478	-2298	-2027	-2021	-1512	-2026	-1698	-1691	-1624
1990	-1599	-1567	-1599	-2059	-1669	-1578	-1387	-1378	-1266	-1921	-1458	-1322	-1683
1991	-1596	-1576	-1582	-1507	-1501	-2377	-1340	-1333	-1360	-1814	-1458	-1327	-1720
Avg	-1482	-1531	-1564	-1441	-1025	-1184	-740	-734	-799	-1306	-1228	-1290	-1599

Georgiana Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2266	1512	1444	1864	2084	1660	1050	1050	1412	1552	1251	1136	909
1977	879	988	1002	949	1199	1164	1369	1370	1253	1848	1282	1229	985
1978	1030	1041	785	3392	3022	3807	2602	2602	1390	810	1318	1176	837
1979	1014	1025	1099	1861	3146	2689	1374	1383	1228	1825	1381	1198	880
1980	971	1072	1358	4832	5923	3023	1177	1186	1517	600	1168	1162	781
1981	912	1131	1103	2198	2607	2812	1147	1147	1726	1295	1371	1177	906
1982	1023	3053	5461	3926	5425	5900	6260	6260	3319	1601	1205	1143	1545
1983	2355	3361	4751	5473	7588	7694	5915	5915	4818	4273	1289	1267	2182
1984	2548	5771	7503	4422	3408	3274	1787	1790	1683	1652	1404	1184	812
1985	790	2927	1379	988	1948	2259	1035	1035	1884	1368	1253	1195	913
1986	1088	1104	1037	1527	8906	5944	1310	1311	1374	230	1419	1184	797
1987	934	1144	1060	626	1920	2963	1568	1569	1562	1445	1355	1225	967
1988	1111	1169	1247	1978	1932	1390	967	968	1329	1562	1273	1237	998
1989	1014	992	946	755	1499	3409	2099	2098	1874	1421	1503	1301	830
1990	1118	1279	1289	1269	1626	1275	1392	1394	840	1811	1306	1234	948
1991	991	1103	1068	917	1526	2404	1574	1575	978	1608	1295	1235	986
Avg	1253	1792	2033	2311	3360	3229	2039	2041	1762	1556	1317	1205	1017

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow
 (Values in cubic feet per second)

Alternative 3X

North Mokelumne River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	207	203	153	159	196	162	21	28	-109	-182	2304	2010	-35
1977	17	25	19	37	-47	-70	-4	1	-25	-201	2301	2187	-27
1978	9	80	207	1807	1251	1505	1433	1433	288	-108	2495	2191	-35
1979	10	79	17	613	1499	1147	568	586	238	-181	2731	2257	-30
1980	3	63	153	2428	3359	1407	693	710	965	695	2436	2448	478
1981	137	145	171	378	262	896	262	272	11	-191	2643	2206	-22
1982	60	433	875	3491	4992	4062	8643	8644	2628	905	2618	2554	718
1983	291	1613	4925	5581	8197	11220	3361	3361	4744	2815	3500	3123	1028
1984	306	3710	6616	2378	1971	1146	672	686	574	259	2930	2338	218
1985	165	623	328	271	573	476	337	347	-9	-194	2333	2203	-16
1986	61	224	236	584	11031	5111	1152	1152	906	601	3034	2444	384
1987	84	152	167	208	346	588	-1	7	-95	-183	2655	2224	-41
1988	25	139	209	264	92	-4	-23	-17	-91	-178	2338	2231	-32
1989	-23	82	101	69	107	806	84	93	42	-55	3133	2509	12
1990	-10	9	-30	108	185	192	41	50	39	-191	2328	2221	-30
1991	-16	-30	18	23	76	696	-3	12	-41	-152	2333	2184	-61
Avg	83	472	885	1150	2131	1834	1078	1085	629	216	2632	2333	157

South Mokelumne River @ New Hope

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	158	121	106	115	142	126	35	28	18	34	594	507	17
1977	6	16	32	38	17	11	55	50	18	33	605	566	23
1978	33	52	103	746	504	580	493	493	51	-57	610	547	13
1979	8	39	34	308	591	458	217	200	71	20	682	591	18
1980	-1	49	133	961	1235	523	249	231	364	271	739	760	213
1981	33	76	112	249	180	427	129	120	58	18	673	556	24
1982	35	315	556	1353	1872	1533	2993	2993	933	392	828	806	356
1983	143	656	1789	1964	2823	3724	1242	1242	1716	911	976	1039	435
1984	120	1443	2415	915	785	515	302	289	262	196	786	658	116
1985	74	347	184	125	278	272	159	149	63	19	585	558	22
1986	43	108	135	290	3741	1825	390	390	320	198	859	720	174
1987	28	86	95	81	182	344	54	47	22	31	684	570	22
1988	32	81	137	195	97	47	15	8	5	26	607	577	26
1989	20	52	64	33	78	443	133	123	79	75	811	662	25
1990	23	35	29	93	113	118	59	51	9	33	623	574	27
1991	19	14	38	23	72	378	42	32	-2	31	618	567	15
Avg	48	218	373	468	794	708	410	403	249	139	705	641	95

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Mokelumne River @ Andrus Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2312	1697	1568	1970	2192	1757	1131	1171	1241	1158	3024	2799	895
1977	1029	1108	1055	1023	1154	1092	1340	1370	1269	1423	3046	2998	963
1978	1065	1169	1034	5186	4345	5431	4364	4363	2050	904	3316	2936	830
1979	1123	1195	1141	2376	4749	3920	2131	2231	1706	1493	3527	2994	878
1980	1104	1170	1375	7170	9379	4616	2117	2224	2696	1497	3241	3248	1323
1981	1243	1328	1225	2339	2740	3575	1477	1526	1705	945	3389	2950	902
1982	1162	3056	5681	7319	10226	9854	14899	14899	6233	2556	3416	3372	2143
1983	2663	4907	9744	11368	16051	19216	9342	9342	9711	7734	4753	3959	3262
1984	2990	9195	13831	6793	5363	4305	2492	2563	2292	1755	3769	3136	1061
1985	1031	3271	1638	1325	2492	2597	1452	1505	1811	1009	3039	2983	924
1986	1212	1381	1231	2022	19391	11248	2813	2813	2569	1147	3891	3238	1229
1987	1166	1329	1248	964	2236	3293	1550	1592	1419	1064	3420	3024	926
1988	1188	1334	1345	2034	1939	1348	1010	1050	1244	1212	3043	3032	959
1989	1019	1118	1078	926	1600	3841	1984	2032	1858	1190	3926	3273	886
1990	1136	1292	1229	1314	1800	1452	1453	1501	1025	1417	3086	3021	916
1991	1012	1099	1093	1012	1568	2815	1591	1644	1041	1332	3088	2997	921
Avg	1403	2228	2845	3446	5452	5023	3197	3239	2492	1740	3436	3123	1189

Little Potato Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	258	67	57	158	191	104	-121	-160	-131	-45	827	743	-88
1977	-211	-145	-76	8	-28	-53	-53	-82	-121	-9	841	816	-64
1978	-77	-57	17	1141	578	694	194	193	-439	-505	789	797	-104
1979	-182	-108	-69	527	742	420	-33	-123	-295	-95	960	884	-123
1980	-198	-50	237	1312	1363	308	-63	-161	35	-129	824	956	53
1981	-248	-50	89	500	295	614	-28	-78	-48	-110	971	808	-87
1982	-106	720	1295	1769	2135	1906	2981	2981	512	129	930	961	407
1983	65	798	1800	1996	2817	3737	1202	1202	1463	34	710	1294	298
1984	-95	1714	2911	929	814	581	182	116	61	92	1031	864	-37
1985	-65	626	289	107	319	485	-22	-73	-32	-84	820	807	-88
1986	-98	8	134	526	4833	1806	-11	-11	-86	-350	1106	929	44
1987	-211	-20	-1	-31	243	683	-41	-83	-96	-31	994	823	-83
1988	-99	-6	222	535	151	17	-130	-169	-135	-34	846	826	-79
1989	-96	-53	-27	-59	76	861	225	176	-13	18	1203	1026	-81
1990	-77	-38	-24	186	186	81	-64	-109	-214	2	857	825	-82
1991	-104	-85	-41	-58	59	715	-65	-116	-226	-14	857	821	-91
Avg	-97	208	426	597	923	810	260	219	15	-71	910	886	-13

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow
 (Values in cubic feet per second)

Alternative 3X

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3686	1767	595	482	628	599	776	2122	1558	140	356	588	567
1977	2817	2188	489	320	356	400	577	1575	1611	384	84	481	679
1978	1062	1320	386	1117	2982	4937	7359	7359	6058	4033	1067	675	1130
1979	4235	2278	614	1135	3170	3308	2639	6243	6942	1194	539	598	907
1980	2886	1734	488	5060	8780	6196	3090	7027	3779	3939	1598	717	1226
1981	4638	2034	418	510	739	731	974	2760	2103	361	117	561	637
1982	1984	1656	403	2657	6192	6106	12621	12622	8427	5243	1323	1128	2907
1983	3583	3486	7852	10363	16782	19639	9362	9362	10020	17445	7739	1327	3799
1984	7688	5973	9603	5942	3728	2579	1689	4212	4415	939	569	718	1015
1985	1988	1918	385	467	723	691	991	2796	2274	355	146	578	679
1986	1973	1538	326	434	10753	11415	4803	4803	4345	4556	535	666	926
1987	3533	1660	504	453	579	673	812	2260	1650	96	400	522	566
1988	1780	1358	172	178	378	377	671	2032	1660	397	218	465	725
1989	1128	1253	360	365	361	251	662	2386	2302	371	151	471	652
1990	1302	1268	324	181	357	379	880	2487	2298	356	285	445	523
1991	1214	1224	315	322	328	430	1042	2862	2460	405	305	445	781
Avg	2844	2041	1452	1874	3552	3669	3059	4557	3869	2513	965	649	1107

SJR near Stockton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	3665	1740	566	485	618	558	728	2073	1462	19	233	532	533
1977	2784	2163	464	335	347	368	501	1499	1568	264	-40	401	639
1978	1024	1299	398	1249	3052	4915	7384	7384	5984	3918	948	593	1087
1979	4194	2259	587	1201	3251	3322	2593	6197	6866	1073	424	522	857
1980	2859	1712	477	5158	8889	6186	3050	6985	3715	3836	1493	642	1181
1981	4599	2007	393	571	735	770	928	2715	2029	236	-7	479	591
1982	1960	1649	415	2790	6235	6191	12629	12629	8357	5149	1208	1051	2880
1983	3559	3537	7888	10504	16894	19793	9368	9369	9958	17333	7624	1247	3758
1984	7654	5994	9674	5950	3741	2554	1635	4159	4333	824	448	637	962
1985	1963	1930	384	484	724	697	932	2737	2189	236	28	502	640
1986	1940	1534	346	485	10939	11344	4775	4775	4277	4443	417	583	889
1987	3494	1632	481	474	621	679	745	2192	1568	-19	285	441	516
1988	1746	1342	159	226	370	344	634	1995	1596	293	82	379	673
1989	1089	1233	348	374	370	272	593	2317	2224	262	20	389	627
1990	1275	1252	295	193	372	345	818	2426	2260	239	156	361	473
1991	1176	1196	290	328	318	469	990	2810	2396	300	176	364	727
Avg	2811	2030	1448	1925	3592	3675	3019	4516	3799	2400	843	570	1065

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

SJR @ Rindge Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	2540	1310	457	415	535	440	648	1648	1067	-205	-156	210	287
1977	2170	1677	359	175	253	254	398	1137	1233	-31	-368	55	326
1978	690	948	236	1273	2889	4567	6630	6630	5412	3348	556	181	683
1979	3139	1760	483	654	3005	3101	2419	5174	5589	763	-14	30	568
1980	2242	1235	-18	4634	8458	5673	2834	5853	3408	3144	1070	325	864
1981	3670	1535	130	117	683	748	872	2204	1582	-17	-427	98	329
1982	1489	677	67	2577	5887	5967	11942	11943	7813	4127	808	723	1859
1983	2971	3110	7468	10090	15824	18308	8952	8952	9402	15770	6552	648	3219
1984	6312	5564	9082	5570	3483	2323	1511	3412	3442	529	86	317	656
1985	1398	1198	27	330	666	400	862	2209	1688	-40	-295	145	379
1986	1462	1157	60	30	10137	10756	4436	4436	3960	3821	59	264	609
1987	2767	1221	386	413	579	357	664	1740	1189	-289	-204	86	261
1988	1308	992	-199	-298	286	239	559	1574	1223	20	-311	29	359
1989	746	894	248	311	308	-14	228	1513	1726	-66	-534	-189	385
1990	913	907	184	-124	297	235	745	1944	1834	-37	-243	14	226
1991	823	856	177	256	252	-17	910	2267	1893	27	-228	19	397
Avg	2165	1565	1197	1651	3346	3334	2788	3915	3279	1929	397	185	713

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1996	3366	3427	4048	4599	3516	3398	3405	2401	1365	2410	3277	1667
1977	3051	2973	2517	1614	2441	2251	2843	2850	3098	1441	2374	2981	1354
1978	1657	2324	1868	11481	12386	16516	16444	16442	11777	6645	4375	2791	1567
1979	2101	3208	2935	1710	12501	11525	8171	8184	6450	3427	3034	1928	2035
1980	3394	2201	-589	18239	30566	16593	8786	8793	10127	6257	5347	4219	3128
1981	4386	3021	1176	1000	5967	7174	4458	4460	3776	1197	2035	2773	1712
1982	2775	3	7694	15635	25764	25527	42854	42855	22808	6864	5152	5273	1428
1983	7349	11596	27613	35688	52659	65201	30573	30573	30310	35622	14317	3934	9630
1984	9524	22990	36922	20299	14257	10644	6929	6934	5543	3268	4068	3993	2393
1985	1772	3192	814	2365	5399	3332	4328	4342	3744	1132	2512	3063	1850
1986	2676	2933	748	268	48162	37062	12320	12319	11076	7458	4175	4013	2675
1987	3788	2755	2923	2667	4844	3952	3946	3954	2981	730	2101	2994	1571
1988	2580	2684	-114	-891	3619	2646	3105	3115	2803	1433	2056	2947	1429
1989	1650	2237	2297	2407	3205	3841	1805	1798	3917	869	1489	1083	1992
1990	2120	2411	2257	186	3336	2627	4077	4084	3506	1450	2205	2923	1576
1991	1782	2072	2064	2324	3116	873	4558	4563	3193	1605	2196	2912	1320
Avg	3288	4373	5910	7440	14551	13330	9912	9917	7969	5048	3740	3194	2333

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Old River @ Head

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0	0	1411	1157	1495	1505	1345	0	0	521	105	148	684
1977	0	0	1143	980	874	1020	998	0	0	118	500	119	158
1978	0	0	1059	2380	4402	6467	8790	8790	7408	4022	1782	1013	1594
1979	0	0	1480	2810	4649	4794	3604	0	0	1888	984	938	1077
1980	0	0	1807	6677	10470	7841	3936	0	4781	3977	2100	1016	1336
1981	0	0	1400	1606	1901	1874	1786	0	0	836	525	210	795
1982	0	0	1626	4184	8284	8160	15141	15141	10407	5177	1996	1750	2943
1983	5012	5181	10196	12820	19084	21621	11808	11808	12545	19873	7147	1955	3671
1984	0	7559	11289	7535	5001	3743	2523	0	0	1387	1035	1033	1160
1985	0	0	1688	1406	1787	1703	1805	0	0	840	551	206	809
1986	0	0	1315	1776	13283	13957	6283	6283	5771	4605	977	993	1021
1987	0	0	1298	1232	1362	1626	1447	0	0	492	165	172	746
1988	0	0	1050	1037	940	975	1361	0	0	109	-6	119	256
1989	0	0	912	847	898	1356	1724	0	0	130	601	261	731
1990	0	0	845	1041	983	1013	1607	0	0	128	62	90	696
1991	0	0	826	808	791	1873	1820	0	0	116	87	76	324
Avg	313	796	2459	3019	4763	4971	4124	2626	2557	2764	1163	631	1125

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-659	-18	228	183	247	237	-577	-705	-677	235	-629	-606	282
1977	-699	-19	223	144	129	157	-586	-683	-706	-629	234	-614	-587
1978	-692	-19	163	373	723	1092	-90	-90	-171	1101	457	368	418
1979	-607	-19	240	453	803	802	-442	-729	-695	490	350	347	391
1980	-708	-16	325	1067	1781	1253	-431	-731	-360	1090	550	372	466
1981	-679	-19	237	288	216	182	-585	-706	-687	312	226	-586	312
1982	-705	-7	314	703	1350	1348	2745	2745	35	1432	519	457	791
1983	-305	813	1660	2305	3517	4110	2012	2012	2114	3685	2004	517	1005
1984	-720	1276	1936	1251	843	653	-503	-724	-698	463	364	375	410
1985	-663	-9	241	167	261	226	-575	-695	-673	318	237	-594	315
1986	-700	-19	221	258	2399	2453	-311	-311	-299	1271	350	366	373
1987	-695	-18	140	155	209	278	-549	-688	-677	228	-576	-598	301
1988	-694	-19	101	106	126	144	-640	-679	-689	-628	-660	-618	-554
1989	-685	-19	130	127	119	161	-429	-569	-677	-617	255	-472	294
1990	-696	-20	117	97	148	155	-571	-688	-721	-629	-642	-625	285
1991	-688	-18	113	117	108	275	-535	-707	-693	-631	-632	-628	-533
Avg	-662	116	399	487	811	845	-129	-247	-392	468	150	-159	248

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Old River near DMC intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-673	-32	212	181	237	170	-650	-780	-798	77	-783	-682	232
1977	-714	-31	211	139	109	107	-698	-791	-769	-786	63	-720	-629
1978	-720	-28	156	405	753	898	-106	-106	-274	892	294	250	349
1979	-646	-26	228	466	810	786	-499	-780	-804	308	196	236	313
1980	-718	-27	318	1087	1836	1246	-493	-792	-452	891	406	261	392
1981	-712	-32	227	291	205	171	-658	-779	-797	133	64	-697	245
1982	-717	-9	316	757	1349	1291	2743	2743	-64	1245	362	342	737
1983	-325	837	1678	2423	3584	4234	2003	2003	2029	3518	1800	397	920
1984	-746	1279	1983	1248	842	634	-567	-789	-807	296	203	259	334
1985	-677	-6	236	163	250	209	-664	-788	-807	138	80	-693	257
1986	-723	-23	215	263	2519	2287	-350	-350	-396	1053	192	243	321
1987	-728	-35	137	147	206	242	-655	-794	-802	62	715	-709	223
1988	-720	-29	95	110	115	110	-724	-762	-785	-792	-838	-728	-612
1989	-722	-29	122	116	110	127	-546	-683	-803	-775	74	-581	257
1990	-713	-33	104	86	113	98	-679	-792	-763	-802	-810	-738	213
1991	-717	-34	102	109	96	208	-615	-784	-786	-785	-795	-734	-598
Avg	-686	109	396	499	821	801	-197	-314	-492	292	-13	-268	185

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1623	-763	168	81	251	119	780	-124	-287	-89	-1023	-724	-263
1977	-662	-757	2	-940	-175	-151	475	-202	-47	-354	-760	-838	-638
1978	-695	-744	-626	692	1993	2536	3553	3553	4728	1864	-45	-872	-663
1979	-2412	-735	221	-1189	1615	2362	2362	-42	-220	637	-1042	-1791	-85
1980	-640	-1206	-1972	1481	6218	4352	2590	-40	3012	1020	209	-238	101
1981	-971	-764	-1308	-1031	550	540	1109	-90	-227	48	-1406	-943	-243
1982	-639	-3218	-2086	613	4656	4612	9528	9536	6836	-587	104	102	-1553
1983	373	789	5892	7936	11453	13085	7526	7526	7761	9555	1933	-1764	1449
1984	-672	4155	6596	4193	2578	1684	1596	-89	-239	458	-418	-248	-35
1985	-1400	-3222	-2050	-783	466	411	1088	-121	-292	-132	-721	-774	-205
1986	-669	-727	-1837	-1857	5669	8106	4182	4181	3648	2085	-442	-290	-49
1987	-697	-766	151	-48	218	299	790	-182	-264	-411	-1662	-819	-298
1988	-677	-749	-2493	-2211	-93	-159	594	-322	-173	-338	-1155	-862	-634
1989	-708	-748	-132	-123	-101	-2335	-1470	-2643	-266	-584	-2279	-2557	-183
1990	-657	-759	-197	-2431	-373	-174	923	-157	8	-383	-1081	-875	-324
1991	-695	-764	-201	-155	40	-2009	1132	-88	-164	-320	-1062	-868	-600
Avg	-840	-686	8	264	2185	2080	2297	1294	1488	779	-678	-898	-264

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Old River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1109	-476	140	105	210	96	396	-198	-328	-178	-803	-536	-196
1977	-461	-479	19	-541	-81	-80	204	-243	-106	-361	-614	-624	-447
1978	-503	-462	-357	643	1519	1935	2500	2500	3089	1292	-18	-605	-331
1979	-1554	-449	181	-690	1248	1701	1512	-74	-263	410	-775	-1221	-86
1980	-439	-755	-1250	1257	4528	3074	1673	-64	1953	803	157	-208	53
1981	-649	-474	-802	-637	425	425	635	-150	-286	-78	-1032	-685	-193
1982	-446	-2095	-1282	700	3347	3367	6790	6794	4545	-202	76	109	-914
1983	320	724	4254	5812	8443	9758	5341	5341	5446	7019	1524	-1096	1117
1984	-429	2977	4765	3014	1868	1205	972	-134	-292	226	-375	-220	-49
1985	-927	-2026	-1270	-424	365	282	620	-173	-311	-175	-584	-570	-162
1986	-471	-450	-1131	-1144	4348	5870	2758	2757	2380	1483	-387	-253	-47
1987	-482	-478	133	28	211	197	405	-233	-321	-351	-1180	-606	-233
1988	-492	-478	-1575	-1406	-23	-90	301	-299	-212	-332	-909	-651	-470
1989	-514	-467	-59	-27	-16	-1439	-986	-1752	-287	-468	-1585	-1703	-130
1990	-467	-474	-108	-1505	-202	-90	498	-208	-33	-380	-840	-659	-262
1991	-507	-481	-108	-54	62	-1251	675	-124	-198	-323	-817	-646	-429
Avg	-571	-396	97	321	1641	1560	1518	859	924	524	-510	-636	-174

Old River near Franks Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-3398	-2572	-2148	-2262	-2304	-2237	-1930	-2327	-2334	-2001	-2851	-2742	-2027
1977	-2541	-2416	-1993	-2208	-2089	-2076	-2063	-2361	-2304	-2183	-2763	-2837	-2163
1978	-2338	-2359	-2182	-3268	-2897	-3367	-3080	-3080	-2083	-1927	-2809	-2902	-2183
1979	-3222	-2489	-2018	-2953	-3160	-2734	-2100	-3164	-3213	-2081	-3040	-3100	-2028
1980	-2587	-2536	-2696	-4253	-4178	-2884	-2118	-3283	-2327	-2287	-2770	-2821	-2160
1981	-2928	-2497	-2372	-2794	-2408	-2687	-1987	-2515	-2499	-1990	-3037	-2891	-2034
1982	-2482	-3725	-4013	-4100	-4482	-4349	-5474	-5473	-3049	-3239	-2813	-2790	-3145
1983	-2898	-3437	-4187	-4498	-5872	-6848	-3830	-3830	-4029	-3867	-3525	-3452	-2682
1984	-3779	-4218	-5609	-3489	-3139	-2882	-2278	-3019	-3051	-2196	-2972	-2783	-2092
1985	-2599	-3651	-2701	-2286	-2362	-2545	-1979	-2512	-2620	-2033	-2782	-2857	-2035
1986	-2500	-2448	-2514	-2895	-7794	-4634	-2202	-2202	-2209	-2037	-3008	-2823	-2126
1987	-2693	-2445	-2050	-2011	-2333	-2806	-2052	-2479	-2368	-2074	-3155	-2863	-2044
1988	-2412	-2371	-2643	-2949	-2269	-2126	-1911	-2320	-2335	-2145	-2871	-2840	-2128
1989	-2312	-2321	-2039	-1994	-2167	-3388	-2670	-3176	-2635	-2233	-3452	-3404	-2013
1990	-2358	-2370	-2081	-2633	-2338	-2179	-2000	-2477	-2305	-2195	-2882	-2839	-2019
1991	-2311	-2310	-2051	-2018	-2127	-3156	-2051	-2587	-2389	-2154	-2899	-2839	-2160
Avg	-2710	-2760	-2706	-2913	-3245	-3181	-2483	-2925	-2609	-2290	-2977	-2924	-2190

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Middle River @ Undine Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-251	11	82	64	86	91	-222	-255	-214	-233	-195	-227	-249
1977	-246	11	76	49	50	59	-216	-237	-260	-196	-238	-220	-220
1978	-244	10	55	119	294	483	-19	-19	69	585	287	-189	249
1979	-237	10	89	121	325	343	-152	-271	-240	298	-171	-190	-196
1980	-254	5	66	495	882	616	-144	-275	-75	572	326	-204	-162
1981	-245	12	62	67	85	81	-227	-266	-237	-194	-216	-200	-231
1982	-253	-19	60	260	667	652	1381	1382	106	767	312	272	426
1983	-60	354	849	1128	1855	2185	1013	1013	1085	1907	1117	297	542
1984	-258	603	968	594	362	247	-184	-261	-234	-133	-172	-198	-181
1985	-247	-18	55	54	88	82	-218	-258	-231	-198	-228	-207	-231
1986	-250	9	50	54	1175	1240	-25	-24	-15	675	-183	-205	-208
1987	-245	11	63	59	74	88	-211	-248	-224	-234	-182	-214	-237
1988	-246	11	25	19	52	58	-249	-264	-243	-201	-200	-215	-206
1989	-241	11	51	45	47	34	-209	-257	-231	-195	-201	-189	-246
1990	-249	11	49	23	49	58	-222	-257	-262	-186	-195	-219	-240
1991	-242	11	48	44	49	53	-209	-260	-238	-200	-194	-222	-198
Avg	-236	65	166	200	384	398	-5	-45	-90	177	-21	-146	-99

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-297	-41	23	32	37	3	-283	-315	-354	-403	-356	-303	-302
1977	-306	-41	22	21	0	-8	-313	-334	-309	-359	-398	-324	-281
1978	-308	-36	5	130	294	502	-2	2	-26	402	113	-302	176
1979	-305	-35	33	114	317	310	-198	-315	-340	108	-333	-296	-268
1980	-303	-46	24	505	901	582	-184	-315	-159	401	171	-309	-228
1981	-310	-43	9	55	49	64	-270	-309	-336	-380	-391	-313	-299
1982	-302	-58	25	280	658	683	1361	1363	10	607	145	158	366
1983	-109	325	816	1176	1872	2233	993	993	1007	1737	932	176	469
1984	-319	558	948	575	354	199	-248	-325	-347	-304	-345	-311	-258
1985	-296	-65	10	43	57	55	-277	-318	-343	-377	-395	-313	-293
1986	-305	-31	8	47	1207	1255	-59	-58	-106	491	-349	-318	-266
1987	-311	-43	12	24	56	56	-291	-327	-348	-403	-334	-319	-308
1988	-305	-39	-25	11	12	-11	-285	-301	-325	-358	-378	-329	-280
1989	-308	-39	5	21	26	3	-273	-320	-344	-353	-371	-297	-292
1990	-301	-40	-7	-5	8	-6	-285	-320	-309	-369	-365	-331	-314
1991	-307	-42	-7	12	-4	37	-266	-317	-333	-355	-361	-330	-273
Avg	-293	18	119	190	365	372	-55	-95	-185	5	-188	-254	-166

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Middle River @ Victoria Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-953	-417	49	27	105	12	98	-332	-446	-297	-773	-563	-319
1977	-556	-412	-31	-423	-122	-119	-65	-381	-281	-448	-648	-642	-505
1978	-573	-404	-310	434	1124	1494	1656	1656	2061	1034	-81	-645	-270
1979	-1307	-399	79	-427	955	1274	912	-276	-395	252	-756	-1047	-227
1980	-542	-609	-855	1050	3551	2394	1027	-274	1215	665	88	-336	-118
1981	-696	-419	-597	-420	264	274	276	-301	-399	-234	-954	-692	-313
1982	539	1458	899	521	2616	2631	5443	5444	3066	63	19	47	-504
1983	74	582	3293	4569	6947	8214	4204	4204	4268	5732	1436	-777	911
1984	-567	2295	3757	2330	1420	885	517	-311	-415	-5	-465	-345	-201
1985	-862	-1467	-898	-326	224	204	261	-321	-441	-300	-625	-609	-290
1986	557	390	-816	766	3621	4671	1836	1836	1535	1200	-475	-369	-201
1987	-577	420	38	31	112	148	106	-360	-422	-434	-1054	-634	-344
1988	-558	-405	-1116	-948	-71	-123	35	-396	-361	-431	-852	-659	-502
1989	-579	-407	-101	-74	-59	-1015	-827	-1379	-423	-545	-1348	-1399	-271
1990	-548	413	-141	-1062	-195	-128	177	-339	-246	-462	-810	-664	-356
1991	571	-418	-143	-98	-27	-847	285	-306	-362	-420	-801	-660	-488
Avg	-619	-323	82	272	1279	1248	996	510	497	336	-506	-625	-250

Middle River @ Bacon Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1372	-712	-10	-34	80	-79	272	-392	-576	-477	-1160	-860	-514
1977	-783	-683	-107	-741	-252	-263	2	-490	-351	-685	-1008	-997	-790
1978	-793	-688	-563	553	1476	1913	2311	2311	3082	1109	-418	-1088	-740
1979	-2043	-687	29	-763	1177	1641	1457	-334	-504	91	-1210	-1683	-396
1980	-757	-1016	-1426	1156	4734	3199	1621	-337	1833	461	-166	-576	-250
1981	-1021	-714	-1036	-715	314	309	529	-356	-495	-436	-1490	-1099	-509
1982	-746	-2321	-1554	-601	3424	3482	7162	7166	4546	-574	-255	-218	-1149
1983	44	574	4388	6091	8883	10324	5641	5641	5635	7072	1300	-1536	907
1984	-836	3004	4916	3068	1854	1138	886	-370	-518	-113	-759	-589	-366
1985	-1270	-2384	-1514	-617	248	275	512	-381	-599	-560	-980	-968	-475
1986	-776	-665	-1380	-1275	4491	6127	2793	2792	2285	1265	-771	-626	-352
1987	-817	-712	-14	-116	86	195	278	-438	-524	-760	-1642	-1000	-554
1988	-748	-667	-1840	-1529	-169	-245	154	-512	-469	-660	-1272	-1013	-761
1989	-797	-688	-223	-172	-157	-1703	-1315	-2173	-572	-901	-2137	-2253	-434
1990	-748	-696	-276	-1765	-370	-275	383	-412	-280	-706	-1229	-1021	-552
1991	-781	-706	-287	-212	-98	-1419	521	-385	-474	-638	-1230	-1020	-776
Avg	-890	-610	-56	221	1608	1539	1450	708	751	218	-902	-1034	-482

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-2893	-1634	-1448	-1445	-1366	-1493	-1262	-1392	-1641	-1829	-2050	-1771	-1696
1977	-1526	-1542	-1513	-1863	-1615	-1631	-1479	-1565	-1471	-1907	-2011	-1896	-1844
1978	-1824	-1700	-1785	-832	-102	461	1106	1106	605	-286	-1533	-1940	-1747
1979	-2071	-1539	-1431	-2873	-223	-25	-251	-701	-1203	-1341	-2035	-2272	-1583
1980	-1505	-1822	-2954	70	2752	808	-88	-588	108	-609	-1261	-1603	-1426
1981	-1381	-1598	-2056	-2962	-1198	-1153	-1068	-1260	-1463	-1783	-2270	-1955	-1686
1982	-1632	-3811	-2318	-507	1569	1650	4762	4763	2447	-1104	-1358	-1331	-2844
1983	-941	-573	2365	3844	6504	7972	3258	3258	3298	5244	418	-2053	-352
1984	-809	1229	3044	1225	186	-445	-742	-1044	-1443	-1480	-1777	-1624	-1545
1985	-1912	-2543	-2427	-1754	-1229	-2246	-1077	-1272	-1530	-1833	-1981	-1873	-1655
1986	-1658	-1637	-2255	-3028	3261	3936	602	602	451	-113	-1779	-1650	-1529
1987	-1435	-1651	-1465	-1482	-1331	-2403	-1255	-1399	-1561	-1984	-2320	-1900	-1725
1988	-1646	-1653	-2543	-3478	-1545	-1611	-1318	-1451	-1543	-1874	-2148	-1909	-1807
1989	-1801	-1699	-1599	-1539	-1525	-2386	-2151	-2341	-1504	-2026	-2673	-2657	-1625
1990	-1736	-1703	-1646	-2474	-1632	-1630	-1178	-1343	-1310	-1908	-2112	-1915	-1721
1991	-1771	-1722	-1655	-1578	-1520	-3139	-1092	-1289	-1422	-1853	-2119	-1916	-1829
Avg	-1659	-1600	-1355	-1292	62	-208	-202	-370	-574	-1043	-1813	-1892	-1663

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	883	-23	1067	918	1145	1079	2033	849	713	305	704	874	596
1977	910	-21	816	801	675	731	1649	768	889	716	278	801	897
1978	885	-15	822	1946	3426	4875	8829	8829	7361	2086	809	675	854
1979	784	-12	1121	2284	3544	3629	4112	915	770	845	584	636	795
1980	931	-15	1399	5170	7909	5960	4426	921	5075	2082	1027	703	954
1981	868	-22	1075	1270	1593	1602	2495	870	760	457	278	837	637
1982	925	14	1238	3292	6282	6205	11007	11006	10122	2777	946	873	1696
1983	5347	4035	7686	9663	13830	15616	8759	8759	9218	14030	3815	989	2061
1984	934	5670	8415	5706	3807	2810	3111	886	766	821	612	702	842
1985	882	19	1374	1197	1429	1378	2479	836	707	464	317	862	661
1986	907	-6	1021	1484	9849	10211	6560	6560	5938	2409	583	669	799
1987	882	-28	1091	1029	1087	1211	2058	787	724	272	715	824	589
1988	893	-18	899	934	753	713	2136	829	795	714	603	791	922
1989	865	-19	707	683	727	1067	2205	667	730	706	306	767	647
1990	905	-24	646	927	725	713	2258	803	922	694	662	776	563
1991	875	-26	635	652	617	1393	2455	858	800	730	676	774	954
Avg	1167	594	1876	2372	3587	3700	4161	2821	2893	1882	807	785	904

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Victoria Canal

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	632	348	-57	-6	-88	-38	-427	-29	28	-210	312	219	-12
1977	220	342	24	440	101	86	-289	6	-49	-10	148	263	192
1978	233	341	291	-263	-812	-1006	-1663	-1663	-2134	-711	107	284	422
1979	970	339	-75	550	-624	-976	-1130	-60	5	-231	330	697	-78
1980	210	536	857	-519	-2611	-1827	-1233	-62	-1419	-333	6	-27	-143
1981	353	347	577	479	-226	-208	-573	-35	9	-247	465	320	-21
1982	210	1379	905	-193	-1955	-1911	-4090	-4090	-3106	484	43	64	856
1983	209	-262	-2478	-3328	-5040	-5919	-3214	-3215	-3303	-4082	-574	902	-461
1984	219	-1757	-2799	-1758	-1064	-708	-800	-48	7	-391	25	-25	-95
1985	541	1381	887	373	-180	-155	-568	-26	41	-169	137	241	-35
1986	223	336	803	824	-2360	-3401	-1915	-1914	-1687	-783	35	-8	-92
1987	234	348	-50	47	-56	-102	-430	-2	23	-66	623	259	0
1988	223	340	1066	969	66	85	-343	73	-3	-10	360	268	185
1989	238	342	81	90	82	1016	525	1029	32	97	867	1043	-46
1990	217	347	104	1053	187	97	-489	-8	-77	4	335	274	6
1991	232	347	108	99	4	891	-579	-38	-10	-20	330	273	178
Avg	297	316	15	-71	-911	-880	-1076	-630	-728	-417	222	315	54

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-958	-353	-96	-86	-83	-109	-46	-311	-299	-200	-383	-334	-233
1977	-457	-377	-96	-197	-111	-118	-79	-278	-255	-258	-338	-357	-293
1978	-291	-300	-182	-56	-58	-155	-377	-377	-200	-280	-335	-412	-357
1979	-830	-389	-87	-592	-140	-68	-12	-690	-910	-209	-423	-506	-246
1980	-459	-404	-524	-337	-36	-170	-25	-769	-66	-432	-339	-313	-259
1981	-673	-375	-273	-523	-53	-60	-15	-362	-328	-209	-430	-386	-239
1982	-373	-959	-410	-212	-66	-14	-66	-65	-62	-715	-330	-297	-898
1983	-385	-292	-36	32	-270	-523	74	74	-20	-653	-653	-575	-317
1984	-948	-121	-162	-66	-74	-98	-32	-512	-640	-218	-339	-313	-257
1985	-475	-695	-394	-192	-64	-331	-20	-370	-371	-237	-326	-361	-238
1986	-378	-318	-327	-543	-413	-66	-51	-51	-35	-311	-340	-316	-245
1987	-529	-339	-85	-89	-73	-377	-45	-329	-288	-261	-494	-364	-239
1988	-349	-298	-400	-634	-102	-112	-57	-322	-284	-246	-391	-359	-286
1989	-296	-293	-109	-89	-91	-389	-363	-701	-370	-307	-576	-606	-227
1990	-306	-298	-115	-377	-131	-121	-32	-345	-301	-250	-395	-358	-232
1991	-300	-293	-117	-97	-85	-580	-29	-383	-360	-243	-400	-359	-299
Avg	-500	-382	-213	-254	-116	-206	-73	-362	-299	-314	-406	-389	-304

Department of Water Resources, Delta Modeling Section

Table 5-3 (cont.)
Monthly Average flow

(Values in cubic feet per second)

Alternative 3X

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-1114	222	728	712	727	694	840	318	368	615	169	188	480
1977	47	191	745	524	696	692	770	373	406	493	236	151	371
1978	369	335	575	561	648	414	90	90	389	395	217	61	264
1979	-655	159	757	-480	472	672	857	-453	-907	546	61	-107	461
1980	49	149	-183	21	525	390	830	-592	737	92	193	203	411
1981	-375	186	412	-345	761	676	869	197	277	570	60	105	473
1982	207	-133	20	203	458	495	434	436	644	-443	207	229	-986
1983	175	225	539	592	338	278	797	797	634	41	-381	-270	239
1984	-902	443	168	602	631	659	822	-106	-378	514	195	217	436
1985	16	-458	132	512	734	30	864	187	194	517	244	140	473
1986	199	290	293	-349	-520	470	685	685	794	304	179	207	439
1987	-98	255	754	713	705	-102	828	270	367	490	-43	138	471
1988	251	330	163	-565	693	700	808	288	365	493	167	154	393
1989	352	343	708	722	701	56	237	-419	191	383	-194	-292	488
1990	329	332	701	177	596	667	850	239	313	482	141	155	491
1991	345	347	697	713	729	-455	850	162	224	495	130	152	363
Avg	-50	139	451	270	556	396	714	155	289	374	99	89	329

Department of Water Resources, Delta Modeling Section

Figure 5-3
Output Locations for Monthly Average Electrical Conductivity

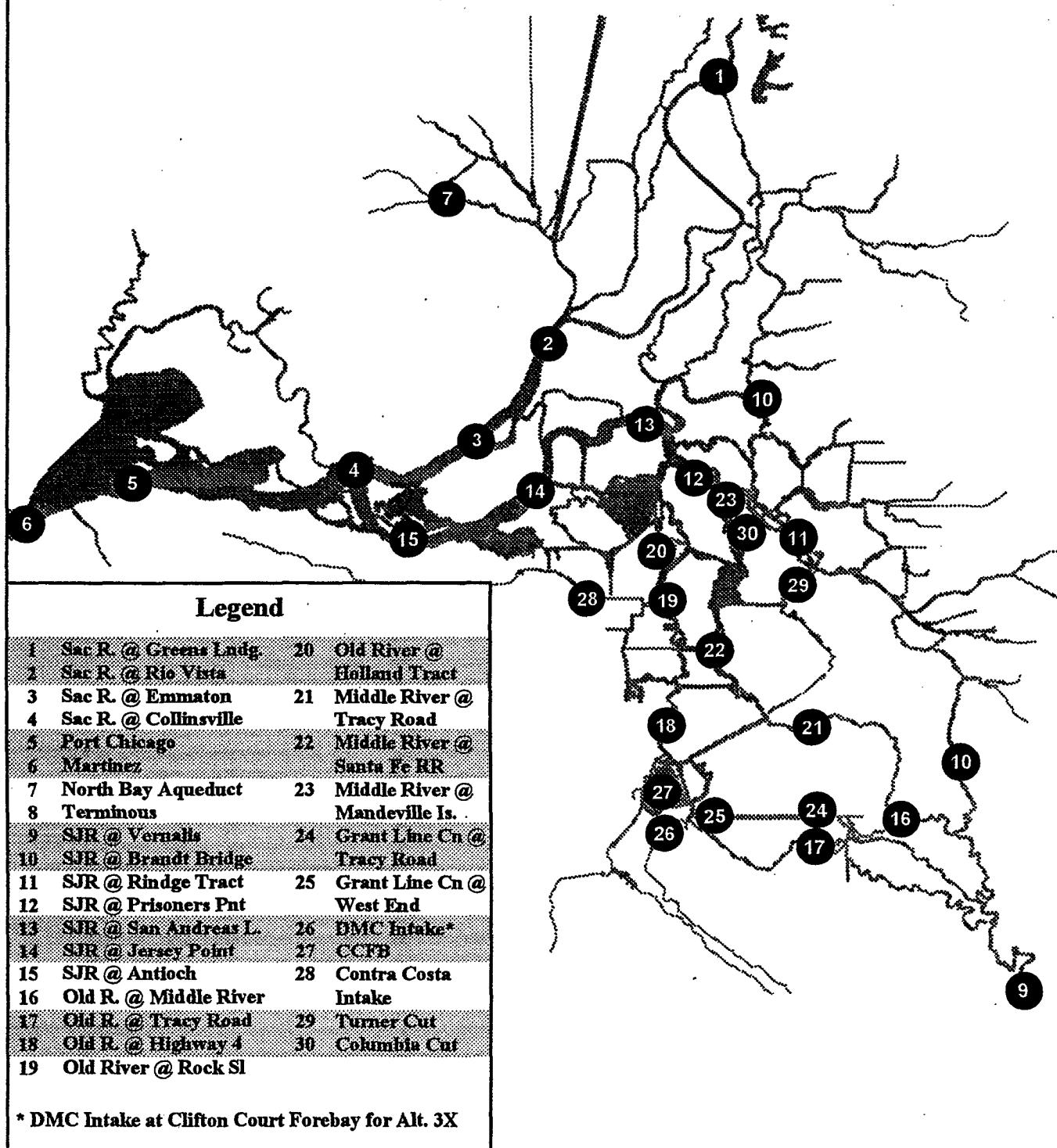


Table 5-4
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

Sacramento River @ Greens Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	150	150	150	150	150	150	150	151	151	151	151	151
1977	151	150	150	151	150	150	151	151	152	152	152	151
1978	151	150	151	151	151	151	150	151	151	151	151	150
1979	150	150	150	153	151	150	151	151	151	151	150	150
1980	150	150	151	151	151	150	151	151	151	151	150	150
1981	150	150	150	152	151	150	151	151	151	150	150	150
1982	150	151	150	152	150	151	150	150	150	150	150	150
1983	150	151	150	152	151	151	150	150	150	150	150	150
1984	150	150	151	150	150	150	150	150	150	150	151	151
1985	150	153	151	151	150	150	150	150	151	151	151	151
1986	151	152	151	151	151	150	150	151	151	151	151	151
1987	151	150	150	151	150	150	150	151	151	151	151	152
1988	151	150	151	151	150	150	150	151	151	152	151	152
1989	151	150	150	151	151	150	150	151	151	151	151	150
1990	150	150	150	151	151	151	151	152	152	151	151	151
1991	150	150	150	152	151	151	151	151	151	151	151	151
Avg	150	150	150	151	151	150	150	151	151	151	151	151

Sacramento River @ Rio Vista

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	160	160	158	156	153	156	167	179	175	219	221	241
1977	260	237	232	244	205	192	188	185	177	226	232	253
1978	314	284	256	163	157	156	156	161	180	186	190	219
1979	219	196	183	173	166	158	162	171	166	177	197	233
1980	203	184	192	156	156	154	163	163	184	177	171	177
1981	176	176	195	167	159	157	169	165	171	193	207	233
1982	214	154	153	163	154	161	152	153	156	164	166	159
1983	153	158	155	160	156	154	152	152	152	157	163	154
1984	154	152	154	154	154	153	155	157	158	167	175	194
1985	209	161	176	199	160	156	163	158	167	203	212	233
1986	223	198	208	202	154	151	156	158	206	184	183	198
1987	191	185	182	260	163	153	157	164	175	210	228	249
1988	232	201	211	181	168	166	179	187	179	231	240	255
1989	313	302	278	318	208	155	157	162	176	197	238	279
1990	237	212	205	214	178	180	171	209	183	223	223	242
1991	294	299	290	323	213	170	169	190	179	218	225	250
Avg	222	204	202	202	169	161	164	170	174	196	204	223

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3X

Sacramento River @ Emmaton

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	584	359	413	281	204	251	631	1026	821	1266	1382	1802
1977	2225	1996	2033	2370	1716	1371	1248	1101	777	1268	1538	2059
1978	2785	2365	1994	247	183	171	176	192	249	389	813	1663
1979	2007	1489	1175	488	192	184	208	261	251	463	1213	1885
1980	1323	988	1198	208	162	161	188	212	299	412	524	830
1981	837	919	1586	622	212	179	282	356	634	1186	1451	1893
1982	1585	267	156	171	162	168	156	156	170	257	377	399
1983	198	169	163	166	158	154	153	154	154	162	260	182
1984	178	160	157	158	161	162	181	200	233	371	588	1072
1985	1724	300	502	1256	367	195	375	340	552	1194	1343	1739
1986	1589	1051	1288	1229	183	153	165	190	317	450	602	1037
1987	1082	1118	1177	2157	583	176	228	431	742	1289	1477	1932
1988	2018	1566	1935	1239	597	528	940	1130	832	1373	1660	2075
1989	3149	3089	2666	2919	1573	219	198	257	534	1097	1933	2472
1990	2188	1849	1686	1909	826	746	588	1103	901	1352	1613	1996
1991	2951	3090	2882	3019	1601	379	306	843	978	1469	1681	2136
Avg	1651	1298	1313	1152	555	325	376	497	528	875	1153	1573

Sacramento River @ Collinsville

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	2492	1509	1872	1175	584	945	2534	4058	3151	3706	3934	5008
1977	6425	6056	6212	7135	5890	4960	4598	4141	2945	3722	4319	5575
1978	6853	5969	5357	539	227	201	206	212	439	1090	2560	4782
1979	6400	5160	4340	2335	307	219	285	620	631	1531	3689	5185
1980	3870	3217	4226	412	173	174	214	252	605	1179	1669	2654
1981	3142	3580	5630	2888	467	209	803	1414	2308	3721	4212	5241
1982	4553	722	163	186	185	183	162	162	200	645	1185	1600
1983	430	187	181	182	160	154	154	160	160	165	683	283
1984	204	176	161	165	173	177	216	318	610	1247	1916	3341
1985	5816	1076	2097	4563	1443	478	1456	1479	2111	3600	3893	4886
1986	4561	3262	4121	4221	264	156	172	213	632	1386	1925	3212
1987	3900	4184	4385	6168	2273	269	716	1899	2818	3939	4154	5297
1988	6261	5371	6680	5001	2259	2259	3595	4248	3144	3969	4550	5601
1989	8375	8335	7455	7676	5282	559	584	985	2006	3630	5429	6294
1990	6684	6070	5690	6656	3370	2969	2505	3706	3296	3913	4507	5440
1991	8012	8376	7944	7990	5388	1609	1076	3040	3455	4251	4655	5748
Avg	4874	3953	4157	3581	1778	970	1205	1682	1782	2606	3330	4384

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3X

Port Chicago

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	13874	12567	13169	11502	9406	10817	14066	16178	15663	17036	17073	18450
1977	18817	18233	18343	19087	17849	17125	16645	16303	15465	17036	17531	18966
1978	19800	18935	18391	3023	1636	768	1665	3745	7894	11743	15453	18154
1979	18862	17342	16631	13605	3716	2895	5493	8747	9795	13314	16967	18454
1980	16901	16360	17581	1179	180	801	4046	5220	9419	12241	13875	15683
1981	15592	15925	17877	14246	7214	4471	8992	11518	14632	16948	17535	18614
1982	17580	8448	646	467	196	198	168	808	4324	9083	12342	13711
1983	7387	2480	290	189	172	158	154	454	372	2701	8444	5801
1984	4198	403	172	331	1602	2129	4757	7428	10059	12680	14380	16642
1985	18455	8734	12671	16103	11373	8843	11922	12042	14391	16813	17164	18324
1986	17624	16186	17387	17176	752	162	2930	4714	9265	12718	14410	16470
1987	16460	16571	16625	18298	12760	6058	9326	12693	15389	17136	17434	18686
1988	18697	17581	18590	17020	13197	13858	15526	16363	15642	17374	17772	18929
1989	20373	19800	19075	19259	17101	6195	8485	10480	13996	16742	18859	19295
1990	19095	18167	17889	18789	14777	14955	13947	15836	15690	17304	17721	18827
1991	20120	19979	19603	19587	17210	11991	11132	14695	15936	17637	17903	19095
Avg	16490	14232	14059	11866	8071	6339	8078	9827	11746	14282	15929	17131

Martinez

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	19414	18491	18779	17413	15456	16620	19458	21411	21695	23125	23028	24321
1977	23833	23245	23369	24014	22735	22268	21715	21551	21573	23158	23379	24773
1978	25347	24636	24132	6786	4295	2855	4193	7945	13411	18035	21681	24063
1979	23909	22396	21862	18991	8099	6441	10139	14076	16380	19740	22998	24284
1980	22908	22599	23583	3498	617	2553	8079	10568	15570	18499	20384	21970
1981	21104	21327	23018	19545	13046	9423	14034	16927	20872	22975	23490	24468
1982	23431	14758	3199	1986	1414	1486	742	2623	8379	14529	18663	20399
1983	13743	6411	1983	934	307	147	1699	3730	2331	5918	13274	11598
1984	9274	2531	456	1729	4501	5392	9426	13422	16638	19078	20798	22773
1985	23643	14217	17984	21009	17105	14915	17422	17662	20657	22813	23190	24211
1986	23503	22296	23387	22981	1202	286	6422	9777	15080	18937	20852	22630
1987	21818	21885	21850	23360	18077	11786	14716	18019	21438	23127	23369	24527
1988	23705	22642	23512	21950	18811	19416	20781	21554	21668	23435	23617	24739
1989	25272	24485	23823	24079	21968	11370	13737	15949	20199	22716	24709	24894
1990	24122	23143	22954	23778	19933	20497	19350	21235	21590	23380	23536	24626
1991	25078	24741	24406	24377	22055	17624	16953	20059	21817	23626	23680	24809
Avg	21882	19363	18644	16027	11851	10192	12429	14782	17456	20193	21916	23068

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

North Bay Aqueduct

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	207	190	180	173	174	174	177	188	202	219	231	224
1977	212	193	178	174	180	184	190	197	214	242	254	234
1978	206	187	184	204	272	283	327	274	247	248	235	209
1979	190	178	172	207	282	325	277	246	267	231	210	193
1980	180	172	182	230	326	399	299	268	232	210	194	184
1981	180	179	178	201	245	226	237	241	228	194	185	182
1982	179	186	203	291	437	360	517	405	253	200	191	189
1983	184	210	255	311	507	598	558	332	221	190	192	195
1984	191	200	249	380	280	231	223	202	200	195	205	214
1985	210	251	289	269	244	211	220	220	202	207	218	222
1986	221	217	219	235	256	311	274	225	209	224	231	232
1987	222	205	187	181	185	188	193	199	218	222	238	233
1988	213	192	182	189	216	209	207	205	219	242	248	228
1989	202	185	174	174	186	198	216	219	233	241	228	201
1990	184	174	172	179	206	238	248	241	247	239	216	198
1991	186	181	178	180	202	219	279	285	245	217	204	194
Avg	198	194	199	224	262	272	278	247	227	220	218	208

Terminous

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	240	264	281	241	208	215	378	558	490	273	208	328
1977	657	701	618	534	490	526	566	641	532	284	212	286
1978	495	624	519	215	190	210	193	288	400	305	202	273
1979	494	498	483	272	215	194	246	402	497	259	176	244
1980	486	545	372	200	185	167	221	217	284	193	162	173
1981	416	448	353	231	253	237	351	524	484	219	170	234
1982	437	250	187	213	168	202	138	138	168	169	162	157
1983	193	205	165	198	165	151	143	131	143	164	161	159
1984	245	168	188	164	154	145	153	184	243	195	184	264
1985	424	282	296	305	207	177	237	388	412	243	197	297
1986	547	570	376	229	159	144	154	182	317	224	199	246
1987	516	559	430	356	246	186	282	509	472	255	214	323
1988	548	575	332	218	224	301	488	658	582	308	211	299
1989	522	636	605	563	491	228	230	403	497	247	184	225
1990	416	559	586	452	338	342	488	662	534	247	177	232
1991	424	617	675	672	626	315	411	638	533	227	171	236
Avg	441	469	404	316	270	234	292	408	412	238	187	249

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

SJR @ Vernalis

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	600	628	728	737	747	694	643	638	860	1132	1168	1014
1977	749	644	749	854	942	902	727	617	803	1003	1095	1131
1978	1058	959	886	690	438	308	239	233	289	454	640	653
1979	532	565	676	569	396	330	344	363	451	625	704	697
1980	636	677	717	454	222	211	290	336	325	411	597	658
1981	529	572	721	690	642	628	589	589	650	842	1008	933
1982	766	748	746	517	290	234	191	178	240	385	477	416
1983	330	295	242	182	152	131	154	181	155	177	317	367
1984	321	273	205	200	264	332	400	439	506	637	701	684
1985	679	720	719	715	686	643	592	552	637	845	992	913
1986	747	754	816	736	425	166	216	281	297	517	713	706
1987	611	650	762	753	752	695	625	624	871	1098	1088	968
1988	781	791	911	930	940	900	732	620	865	1098	1119	1083
1989	994	952	926	926	955	883	677	543	823	1003	985	964
1990	896	919	942	943	931	887	677	482	683	999	1147	1030
1991	927	938	955	967	999	840	598	526	778	1069	1137	1042
Avg	697	693	731	679	611	549	481	450	577	768	868	829

SJR @ Brandt Bridge

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	607	615	732	731	751	698	648	639	800	1104	1178	1034
1977	760	640	741	842	931	912	743	620	769	1002	1086	1133
1978	1065	965	890	704	442	311	240	234	291	453	637	658
1979	537	556	675	579	399	331	345	366	453	622	705	698
1980	640	667	724	460	224	211	289	338	328	409	587	662
1981	534	560	719	698	644	632	595	591	650	779	996	942
1982	774	741	758	526	293	236	192	178	240	381	480	418
1983	331	297	244	187	153	133	153	182	156	177	314	369
1984	322	275	206	200	263	331	399	441	504	632	703	688
1985	679	720	726	714	692	643	597	553	630	802	989	927
1986	757	745	821	745	431	167	214	282	299	499	719	710
1987	617	636	764	751	754	701	629	626	793	1091	1100	986
1988	792	777	904	924	937	907	748	624	815	1093	1117	1092
1989	997	953	927	922	950	902	692	550	765	1025	976	974
1990	895	917	939	943	932	898	696	488	652	936	1132	1044
1991	926	936	952	966	993	868	607	531	716	1024	1120	1054
Avg	702	688	733	681	612	555	487	453	554	752	865	837

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

SJR @ Rindge Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	629	560	613	592	618	599	611	619	480	414	603	792
1977	815	634	648	643	690	709	736	637	529	409	429	693
1978	952	961	843	772	504	343	254	243	307	412	466	597
1979	556	523	594	614	448	354	353	375	431	453	405	567
1980	652	619	577	505	247	216	288	353	345	388	437	591
1981	553	510	534	556	630	666	635	590	494	349	370	644
1982	795	678	519	606	325	280	202	182	242	332	445	435
1983	346	323	264	214	167	145	157	186	161	180	269	379
1984	327	293	226	208	266	329	390	444	446	429	499	615
1985	672	716	560	555	643	595	585	551	454	342	434	707
1986	792	714	648	602	461	178	211	287	312	342	468	638
1987	644	581	637	635	673	637	606	608	435	387	523	709
1988	825	724	616	643	698	663	723	632	545	447	473	721
1989	920	934	876	831	818	660	600	575	455	363	345	655
1990	861	867	761	620	703	696	732	524	478	420	402	576
1991	843	891	854	841	848	699	664	552	484	402	393	693
Avg	699	658	611	590	546	486	484	460	412	379	435	626

SJR @ Prisoners Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	422	323	305	287	281	272	305	358	356	307	288	379
1977	607	590	535	565	589	482	437	435	368	307	293	401
1978	660	756	685	537	485	367	271	245	293	290	237	328
1979	508	475	413	322	393	352	331	357	314	248	228	360
1980	504	441	435	501	284	222	261	336	332	272	218	249
1981	430	382	366	389	321	347	393	400	310	269	256	362
1982	530	331	200	424	379	305	219	181	214	214	218	213
1983	285	297	285	244	189	164	158	188	167	173	183	293
1984	316	301	249	215	244	272	297	345	278	219	211	270
1985	418	372	253	317	346	244	301	355	280	264	261	354
1986	527	505	429	470	476	194	197	270	305	248	220	280
1987	464	429	390	422	431	250	270	331	302	298	287	392
1988	569	530	521	739	513	335	357	418	381	329	310	415
1989	665	812	763	738	657	314	212	326	295	275	318	517
1990	626	582	509	531	530	367	401	450	401	308	280	379
1991	605	756	762	763	676	359	353	417	367	300	282	402
Avg	509	493	444	467	425	303	298	338	310	270	256	350

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

SJR @ San Andreas Landing

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	442	263	244	231	218	217	246	320	371	342	332	453
1977	609	602	567	650	639	486	422	387	370	345	352	508
1978	798	824	726	349	316	280	240	233	281	266	242	393
1979	557	492	395	318	279	271	276	311	283	234	265	457
1980	492	408	499	331	236	201	229	282	296	238	202	237
1981	335	340	403	435	264	237	282	306	297	308	314	458
1982	544	331	181	250	252	232	184	168	190	191	187	203
1983	224	224	225	218	180	159	154	168	164	166	175	221
1984	260	221	201	190	196	204	224	254	238	203	201	278
1985	438	340	243	338	290	214	227	267	267	298	307	428
1986	537	460	450	553	289	174	182	234	285	239	213	284
1987	384	387	368	461	403	219	208	255	311	342	341	485
1988	607	516	619	885	517	299	307	370	387	373	377	521
1989	809	932	837	830	674	281	189	235	280	312	421	681
1990	691	592	518	626	548	331	319	383	415	352	349	486
1991	738	881	863	872	695	358	274	336	378	352	357	519
Avg	529	488	459	471	375	260	248	282	301	285	290	413

SJR @ Jersey Point

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	860	325	297	264	233	240	321	532	691	646	641	892
1977	1047	982	994	1306	1138	840	707	591	639	638	704	1053
1978	1555	1417	1234	460	330	291	245	227	266	305	386	809
1979	1092	820	619	539	293	274	264	286	287	301	542	927
1980	755	618	1172	428	252	204	220	271	296	292	280	371
1981	416	471	903	938	324	258	295	326	465	636	662	939
1982	919	538	195	261	279	243	193	171	187	210	230	316
1983	234	228	238	237	192	167	157	173	169	168	198	215
1984	244	233	209	194	200	210	225	242	250	251	284	480
1985	889	524	376	662	371	240	255	297	417	577	603	842
1986	909	669	882	1253	351	184	181	227	283	303	302	468
1987	535	583	604	866	559	249	224	304	588	707	686	972
1988	1091	874	1556	2130	809	406	462	581	687	718	773	1064
1989	1642	1734	1482	1469	1062	371	213	246	429	676	1068	1366
1990	1252	1068	946	1522	918	476	409	498	721	683	730	999
1991	1497	1688	1595	1574	1099	608	309	417	677	720	761	1099
Avg	934	798	831	881	526	329	293	337	441	489	553	801

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

SJR @ Antioch

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	2220	1033	1207	794	438	638	1550	2665	2429	2517	2572	3513
1977	4214	3994	4141	5071	4222	3428	3088	2684	2230	2495	2848	3975
1978	5032	4346	3904	649	298	271	236	223	351	722	1645	3346
1979	4458	3449	2839	1806	338	257	275	444	503	1005	2463	3635
1980	2665	2251	3444	602	249	198	217	263	449	743	1019	1692
1981	1891	2267	3972	2543	474	241	558	940	1684	2587	2810	3694
1982	3214	827	194	241	273	237	195	170	195	426	713	1164
1983	978	215	233	239	197	172	158	172	169	167	454	256
1984	229	225	210	189	192	199	222	283	468	794	1166	2207
1985	3990	1107	1463	3082	1045	394	880	985	1541	2424	2538	3396
1986	3214	2275	3069	3504	454	186	178	220	441	886	1186	2099
1987	2428	2720	2856	3972	1648	287	489	1227	2142	2757	2761	3735
1988	4306	3625	5208	4638	1865	1523	2271	2772	2397	2742	3023	3985
1989	5953	5952	5240	5262	3690	604	449	672	1485	2623	3957	4597
1990	4688	4209	3908	5161	2680	1950	1629	2238	2502	2659	2982	3859
1991	5621	5966	5612	5552	3787	1435	747	1861	2544	2887	3109	4126
Avg	3406	2779	2969	2707	1366	751	821	1114	1346	1777	2203	3080

Old River @ Middle River

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	578	629	732	733	749	697	642	559	767	815	876	911
1977	690	754	748	847	935	909	751	648	721	896	782	861
1978	686	755	886	700	442	312	240	235	293	456	621	658
1979	552	672	673	576	399	332	366	474	460	615	664	666
1980	537	599	718	459	224	211	301	339	329	411	573	662
1981	515	555	720	696	645	632	642	639	649	720	766	835
1982	593	686	750	525	293	237	192	179	241	383	480	419
1983	331	297	244	187	153	133	154	182	156	178	316	369
1984	386	277	206	201	264	332	398	437	506	619	674	671
1985	536	706	726	715	690	643	623	540	616	745	777	839
1986	645	734	821	741	430	167	215	282	300	497	690	690
1987	578	651	762	752	753	699	636	552	771	847	851	878
1988	663	717	905	927	938	905	754	618	731	632	796	899
1989	682	748	924	923	951	892	611	529	697	889	774	831
1990	667	724	932	943	931	894	780	696	679	667	719	881
1991	611	680	947	966	995	855	658	632	663	710	681	876
Avg	578	630	731	681	612	553	498	471	536	630	690	747

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3X

Old River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	635	648	730	730	752	700	675	642	748	811	812	917
1977	784	741	744	833	920	914	804	730	754	876	854	795
1978	728	717	870	714	456	322	342	389	306	464	620	661
1979	590	584	668	591	410	337	378	552	480	616	661	658
1980	599	577	714	475	246	215	331	438	339	413	564	647
1981	571	542	710	710	657	646	669	720	656	700	710	819
1982	690	664	753	558	302	252	195	211	243	383	484	423
1983	351	316	252	250	174	167	155	183	158	179	317	373
1984	381	284	224	207	269	335	416	475	509	615	668	671
1985	613	698	740	724	700	646	637	599	619	713	772	834
1986	741	739	820	753	446	171	221	345	306	492	686	688
1987	661	670	755	751	754	704	667	639	738	823	834	886
1988	761	710	880	914	929	908	808	724	752	751	750	832
1989	749	721	903	914	943	902	719	598	711	890	745	834
1990	743	710	906	939	931	903	831	802	787	694	630	872
1991	724	671	917	963	989	875	702	740	709	642	601	744
Avg	645	625	724	689	617	562	534	549	551	629	669	728

Old River @ Highway 4

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	578	478	629	663	710	660	644	524	578	497	485	617
1977	682	715	704	703	787	802	754	648	609	535	474	507
1978	687	851	855	743	474	339	248	242	329	474	431	454
1979	558	560	619	548	421	342	365	454	539	458	356	495
1980	549	555	566	493	255	217	299	358	366	422	446	541
1981	475	481	513	612	658	658	647	608	608	420	371	510
1982	601	518	399	589	311	264	199	183	249	355	449	350
1983	341	321	263	249	190	160	159	187	164	188	247	381
1984	373	290	225	208	268	334	395	413	500	455	453	536
1985	502	548	458	517	681	644	622	504	505	427	408	563
1986	634	661	613	648	458	180	215	288	323	403	469	563
1987	539	557	668	689	725	701	635	506	502	145	474	593
1988	665	684	642	897	894	786	755	601	594	528	498	530
1989	693	872	902	892	898	630	385	439	496	415	415	600
1990	703	735	773	675	790	773	789	711	617	491	432	518
1991	636	804	881	926	949	705	664	603	559	462	425	476
Avg	576	602	607	628	592	512	486	454	471	436	427	515

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3X

Old River @ Rock Slough

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	571	401	434	463	495	458	489	436	473	431	420	474
1977	666	706	664	678	728	649	608	544	505	441	423	474
1978	747	907	849	764	537	379	267	253	352	397	332	379
1979	578	567	532	444	446	363	364	388	477	353	298	404
1980	551	522	537	554	280	226	289	370	394	389	329	337
1981	428	441	443	564	571	608	599	496	441	371	352	417
1982	598	460	264	575	356	286	205	185	228	280	316	267
1983	317	353	287	268	189	170	164	190	169	196	217	360
1984	345	307	241	219	273	332	369	361	399	324	295	353
1985	475	498	327	379	535	524	521	418	386	360	365	430
1986	604	613	537	637	490	187	215	293	339	341	312	373
1987	481	508	522	556	620	542	494	402	400	406	416	478
1988	657	660	643	1046	849	556	552	505	506	461	456	494
1989	753	963	943	896	868	497	270	360	391	370	418	573
1990	735	730	678	659	728	554	624	551	526	439	407	444
1991	679	893	929	929	905	553	540	484	482	423	407	462
Avg	574	596	552	602	554	430	411	390	404	374	360	420

Old River @ Holland Tract

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	564	374	361	360	363	347	375	412	446	415	406	469
1977	681	702	659	697	738	613	552	511	471	419	414	491
1978	791	926	848	708	550	399	284	256	326	352	309	388
1979	591	567	499	413	426	374	350	359	379	319	295	430
1980	560	509	551	571	300	231	271	358	369	344	291	300
1981	421	425	448	561	457	474	494	446	392	364	353	438
1982	612	440	246	467	389	297	212	186	215	247	268	248
1983	290	331	298	283	202	179	165	192	173	185	207	310
1984	328	312	249	223	263	308	331	338	338	283	265	325
1985	481	480	307	373	441	370	390	387	349	348	358	432
1986	609	591	530	650	509	197	209	285	327	314	279	339
1987	473	490	476	520	566	387	357	365	374	400	405	483
1988	672	648	664	1083	789	460	439	478	478	446	448	510
1989	800	1002	963	918	857	458	253	334	359	365	434	630
1990	757	725	655	677	715	480	492	495	500	426	405	464
1991	724	933	963	958	886	513	426	445	460	416	408	488
Avg	585	591	545	591	528	380	350	365	372	353	347	422

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3X

Middle River @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	562	517	613	694	733	689	627	533	584	498	501	583
1977	681	703	684	689	681	696	713	631	612	526	461	520
1978	678	826	839	743	487	361	321	262	340	509	441	643
1979	537	529	604	630	442	360	366	437	534	478	378	424
1980	535	579	598	503	263	226	293	361	362	431	431	508
1981	501	500	515	687	733	733	662	610	608	413	353	444
1982	590	589	545	632	328	308	203	188	253	396	497	431
1983	359	332	262	262	176	160	159	189	164	186	330	383
1984	370	294	229	229	288	347	392	423	491	449	424	507
1985	517	603	579	648	715	666	627	523	529	417	397	505
1986	623	683	666	704	458	185	206	289	325	396	427	529
1987	554	581	625	699	731	723	639	524	534	444	493	555
1988	647	690	613	671	768	725	710	595	600	534	495	537
1989	676	820	868	845	851	738	448	494	532	417	387	485
1990	669	740	732	654	694	723	773	669	592	488	425	465
1991	604	757	832	868	908	891	676	598	558	460	416	478
Avg	569	609	613	635	579	533	488	458	476	440	429	500

Middle River @ Santa Fe Rail Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	565	496	500	518	539	527	531	519	517	462	497	572
1977	696	678	642	615	647	651	634	603	565	477	445	526
1978	700	841	825	773	533	378	265	249	348	431	413	424
1979	532	517	540	539	469	365	367	403	496	440	366	397
1980	552	572	538	547	276	225	290	366	394	411	390	397
1981	506	486	477	544	621	688	667	580	522	382	352	446
1982	613	569	414	636	350	307	206	184	240	307	361	374
1983	357	370	278	268	193	174	161	189	168	194	242	371
1984	358	304	240	223	278	338	384	420	447	405	390	433
1985	522	590	474	437	551	618	588	510	472	381	390	490
1986	633	666	597	580	480	188	213	291	336	366	390	453
1987	561	562	553	563	604	640	580	510	479	420	483	540
1988	659	679	594	686	736	624	590	579	558	497	481	540
1989	695	836	871	830	813	625	433	487	489	389	383	488
1990	686	742	710	606	649	630	666	607	534	458	416	468
1991	625	775	835	837	852	698	618	564	517	436	410	493
Avg	579	605	568	575	537	480	450	441	443	404	401	463

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

Middle River @ Mandeville Island

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	494	407	388	366	366	354	388	437	388	335	322	402
1977	680	626	571	571	609	536	510	517	416	337	313	398
1978	669	807	735	677	562	392	282	249	302	335	279	345
1979	531	495	468	382	445	381	353	373	355	297	245	355
1980	558	506	446	537	301	229	273	354	352	324	271	313
1981	500	435	395	406	407	469	506	491	363	287	263	358
1982	594	396	248	504	405	318	222	183	228	251	278	277
1983	324	328	295	264	205	178	161	190	172	176	205	333
1984	331	313	255	222	261	309	347	406	338	265	257	322
1985	476	476	305	344	425	321	393	445	328	283	280	369
1986	594	586	474	473	498	201	203	280	315	283	261	335
1987	646	492	455	460	502	332	363	427	335	317	312	397
1988	625	602	525	704	581	416	444	501	425	360	333	415
1989	673	832	803	762	721	404	279	426	343	294	306	476
1990	664	661	578	534	576	447	501	511	433	337	294	367
1991	609	773	787	779	741	427	447	491	407	323	291	392
Avg	554	546	483	499	475	357	355	393	344	300	282	366

Grant Line Canal @ Tracy Road

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	627	617	729	731	751	699	665	634	736	802	800	913
1977	768	741	745	840	927	913	787	714	737	863	812	789
1978	722	728	878	707	447	316	243	239	294	451	614	660
1979	584	576	669	582	403	334	367	537	465	607	657	660
1980	588	579	715	465	229	213	309	351	331	407	562	646
1981	563	541	713	702	649	637	649	710	650	694	708	826
1982	673	653	749	535	296	243	193	179	240	378	481	421
1983	335	298	245	199	157	140	154	182	157	178	311	371
1984	382	280	208	203	266	333	406	469	504	609	666	670
1985	600	615	725	717	694	644	630	594	612	706	751	835
1986	725	712	818	745	434	169	215	286	301	481	680	686
1987	647	631	756	751	754	702	656	630	724	815	817	883
1988	745	708	894	924	935	908	791	706	737	750	738	841
1989	739	731	912	918	947	897	683	591	697	880	759	843
1990	729	714	916	942	931	899	803	782	757	687	631	873
1991	706	674	928	965	991	866	674	723	691	650	601	780
Avg	633	612	725	683	613	557	514	520	540	622	662	731

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

Grant Line Canal @ West End

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	627	553	720	727	753	702	666	621	705	817	800	916
1977	772	730	739	830	915	919	791	715	740	855	826	790
1978	721	781	871	717	451	319	243	239	298	446	611	662
1979	584	567	662	588	406	335	362	516	478	609	661	659
1980	592	573	711	469	231	213	302	351	335	403	553	645
1981	563	514	699	708	653	641	644	699	660	679	712	818
1982	679	617	744	543	299	246	194	179	244	370	483	425
1983	336	299	246	203	159	143	155	182	157	177	306	374
1984	378	281	208	204	266	333	402	459	502	608	667	672
1985	602	594	724	719	699	645	629	586	608	693	756	833
1986	728	691	813	751	438	170	215	286	302	465	681	689
1987	645	596	745	751	754	707	654	616	692	826	821	887
1988	750	699	875	919	931	912	795	700	740	770	741	835
1989	739	787	899	914	942	906	677	560	701	864	770	836
1990	735	726	890	940	931	907	800	783	773	703	633	857
1991	713	726	903	963	986	882	670	712	699	658	604	766
Avg	635	608	716	684	613	561	512	513	540	621	664	729

DMC Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	231	188	198	231	219	212	272	181	151	201	208	252
1977	241	250	248	257	211	226	180	169	171	433	282	290
1978	410	383	260	232	200	188	176	151	181	177	207	220
1979	253	190	200	288	202	170	225	153	188	205	220	198
1980	194	209	288	258	165	158	150	150	180	231	191	193
1981	196	195	244	263	208	202	190	218	171	209	177	208
1982	205	278	254	255	179	164	151	150	183	252	180	234
1983	209	194	164	166	158	152	150	150	153	155	181	169
1984	182	180	165	161	162	168	208	152	187	182	203	196
1985	218	282	270	234	214	205	219	193	164	187	191	230
1986	230	226	292	309	254	157	150	150	165	263	195	201
1987	192	205	200	213	221	212	250	155	170	208	212	265
1988	244	238	312	354	445	221	172	157	151	206	256	297
1989	341	253	256	233	540	328	237	154	160	227	223	200
1990	237	334	356	327	223	251	153	154	155	403	256	236
1991	313	383	388	383	691	346	156	152	203	361	285	346
Avg	244	249	256	260	268	210	190	162	171	244	217	233

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity

(Values in micro Siemens per centimeter)

Alternative 3X

Clifton Court Forebay

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	231	188	198	231	219	212	272	181	151	201	208	252
1977	241	250	248	257	211	226	180	169	171	433	282	290
1978	410	383	260	232	200	188	176	151	181	177	207	220
1979	253	190	200	288	202	170	225	153	188	205	220	198
1980	194	209	288	258	165	158	150	150	180	231	191	193
1981	196	195	244	263	208	202	190	218	171	209	177	208
1982	205	278	254	255	179	164	151	150	183	252	180	234
1983	209	194	164	166	158	152	150	150	153	155	181	169
1984	182	180	165	161	162	168	208	152	187	182	203	196
1985	218	282	270	234	214	205	219	193	164	187	191	230
1986	230	226	292	309	254	157	150	150	165	263	195	201
1987	192	205	200	213	221	212	250	155	170	208	212	265
1988	244	238	312	354	445	221	172	157	151	206	256	297
1989	341	253	256	233	540	328	237	154	160	227	223	200
1990	237	334	356	327	223	251	153	154	155	403	256	236
1991	313	383	388	383	691	346	156	152	203	361	285	346
Avg	244	249	256	260	268	210	190	162	171	244	217	233

Contra Costa Canal Intake

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	594	454	500	562	605	565	639	515	535	511	505	526
1977	670	724	691	687	732	699	684	607	584	520	488	502
1978	719	877	851	834	690	568	347	313	428	457	377	399
1979	578	578	563	543	542	414	451	582	548	422	328	422
1980	546	541	541	614	581	293	399	432	435	437	378	392
1981	448	469	457	593	645	715	765	678	498	406	377	433
1982	587	500	311	846	584	516	307	229	253	323	365	310
1983	354	455	478	761	489	462	301	227	206	225	247	383
1984	381	401	394	280	308	358	431	457	440	385	348	412
1985	488	578	391	425	576	621	641	483	432	404	401	474
1986	624	653	586	648	703	308	261	325	369	392	380	453
1987	517	544	567	618	673	676	670	561	448	453	475	529
1988	663	685	639	985	910	700	730	578	581	570	522	541
1989	723	916	914	885	882	589	340	434	454	407	434	559
1990	713	732	702	666	750	642	804	651	614	497	447	466
1991	647	846	890	906	919	643	655	571	549	460	436	470
Avg	578	622	592	678	662	548	527	478	461	429	407	454

Department of Water Resources, Delta Modeling Section

Table 5-4 (cont.)
Monthly Average Electrical Conductivity
 (Values in micro Siemens per centimeter)

Alternative 3X

Turner Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	634	583	726	713	739	719	667	645	618	612	1012	1116
1977	814	634	692	738	793	870	822	643	658	545	764	1070
1978	1082	984	903	776	518	358	257	248	312	453	608	681
1979	554	532	655	647	453	365	362	377	468	581	632	697
1980	654	637	712	512	302	226	295	361	347	402	526	663
1981	552	526	664	719	719	722	655	597	615	450	634	930
1982	808	727	755	636	366	372	233	190	244	360	489	438
1983	346	324	292	363	200	160	186	198	163	181	295	382
1984	328	300	242	228	277	335	396	445	486	570	679	712
1985	688	733	748	743	724	667	621	556	571	459	719	968
1986	805	732	803	764	475	203	221	291	314	397	669	744
1987	645	601	744	745	744	729	661	630	575	582	930	1042
1988	846	745	746	697	803	870	814	642	673	624	835	1069
1989	1013	956	924	888	889	858	771	580	592	474	606	922
1990	900	904	894	789	853	901	791	520	536	571	721	983
1991	936	927	922	922	946	946	726	554	565	565	726	1026
Avg	725	678	714	680	613	581	530	467	484	489	678	840

Columbia Cut

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	531	437	419	396	396	388	412	462	410	354	344	420
1977	683	642	587	575	614	560	536	544	446	359	328	402
1978	662	817	758	711	596	416	296	254	311	354	304	353
1979	534	501	488	425	460	395	361	377	375	326	259	351
1980	559	530	460	552	320	236	274	359	363	345	299	333
1981	507	453	411	426	439	511	547	521	397	301	271	360
1982	598	461	278	509	429	329	224	184	228	263	298	319
1983	332	341	304	283	215	189	163	192	174	178	213	331
1984	338	319	260	230	267	317	357	415	367	294	281	344
1985	489	524	341	355	444	371	422	471	359	297	292	380
1986	603	613	502	485	516	208	205	283	322	302	284	358
1987	553	515	480	476	521	388	396	456	361	330	331	407
1988	629	628	534	686	613	459	468	527	451	381	351	420
1989	666	830	818	773	744	460	311	450	372	307	305	457
1990	666	687	611	541	589	487	526	536	452	357	308	368
1991	601	770	795	786	765	487	472	514	430	340	303	392
Avg	559	567	503	513	496	388	373	409	364	318	298	375

Department of Water Resources, Delta Modeling Section

Figure 5-4
Distance Reference for X2 Tables
(values shown in kilometers from Golden Gate)

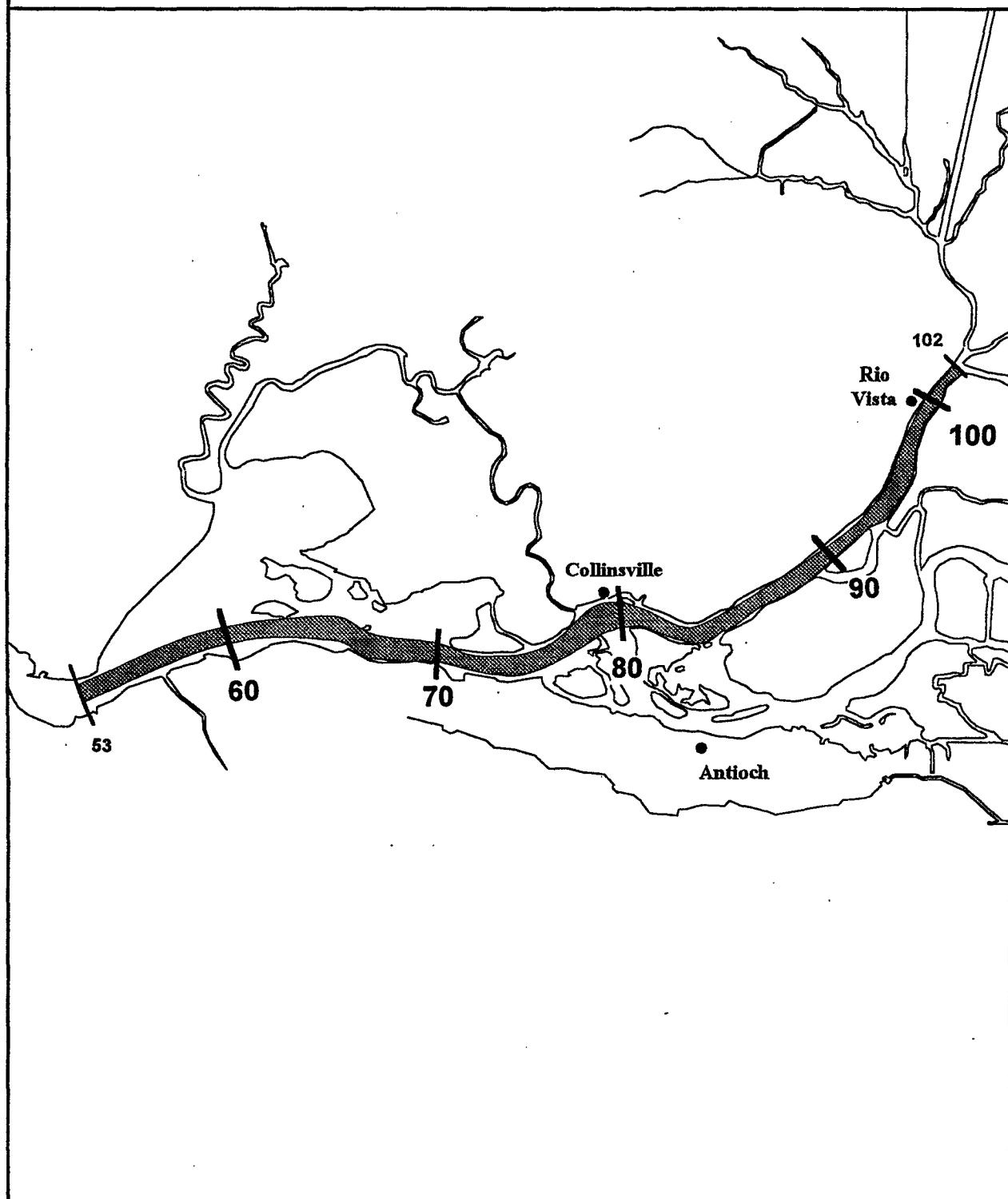


Table 5-5
Monthly Average Location of 2640 micro Siemens/cm, EC

(Values in km from Golden Gate)
(Benicia Assumed to be at 53.1 km from Golden gate)
(Hydrology from DWRSIM Study 567)

Alternative 3X

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	77.7	74.7	76.0	73.4	69.8	72.3	78.7	83.2	81.4	83.0	83.7	85.6
1977	87.1	86.5	86.7	87.5	85.9	84.8	84.2	83.5	80.5	82.8	84.5	86.5
1978	88.5	87.4	86.4	61.9	59.6	57.0	59.9	62.1	67.2	72.8	78.8	85.2
1979	86.7	85.1	83.9	77.8	62.5	61.7	63.6	69.5	69.9	74.6	82.6	86.0
1980	83.4	81.8	83.9	62.1	*	57.7	62.2	62.4	69.1	73.5	75.1	79.3
1981	81.0	82.2	85.5	79.1	65.4	62.3	70.3	74.3	77.8	83.1	84.3	86.1
1982	84.9	67.2	57.5	54.8	54	*	*	57.7	62.6	69.9	73.5	74.8
1983	65.1	60.9	56.8	*	*	*	56.1	57.3	56.1	61.3	69.7	63.7
1984	62.4	57.5	*	56.1	59.7	60.8	62.6	65.2	70.0	73.7	75.9	81.7
1985	85.9	68.7	76.2	84.3	73.8	68.6	74.4	74.6	77.0	82.8	83.6	85.5
1986	84.9	81.9	83.8	84.1	66.0	0.0	61.6	62.2	69.3	74.1	75.9	81.4
1987	83.0	83.6	83.9	86.9	76.6	63.5	70.2	76.1	80.1	83.7	84.2	86.1
1988	86.7	85.4	86.5	84.3	77.5	77.6	82.2	83.7	81.3	83.5	85.0	86.6
1989	89.2	89.1	88.2	88.8	85.1	65.3	69.0	72.6	76.6	82.8	86.2	87.7
1990	87.1	86.2	85.8	86.5	80.4	80.1	78.5	82.1	81.6	83.4	84.9	86.3
1991	88.8	89.1	88.7	89.0	85.2	74.8	73.0	80.2	82.4	84.2	85.2	85.2
Avg	82.6	79.2	**	**	**	**	**	71.7	73.9	78.1	80.8	83.0

* Values Downstream of Model Boundary - Benicia

** 16 Year Average not Reported - Contains Values Downstream of Benicia.

Department of Water Resources, Delta Modeling Section

Figure 5-5
Output Locations for Minimum Water Levels
Alternative 3X

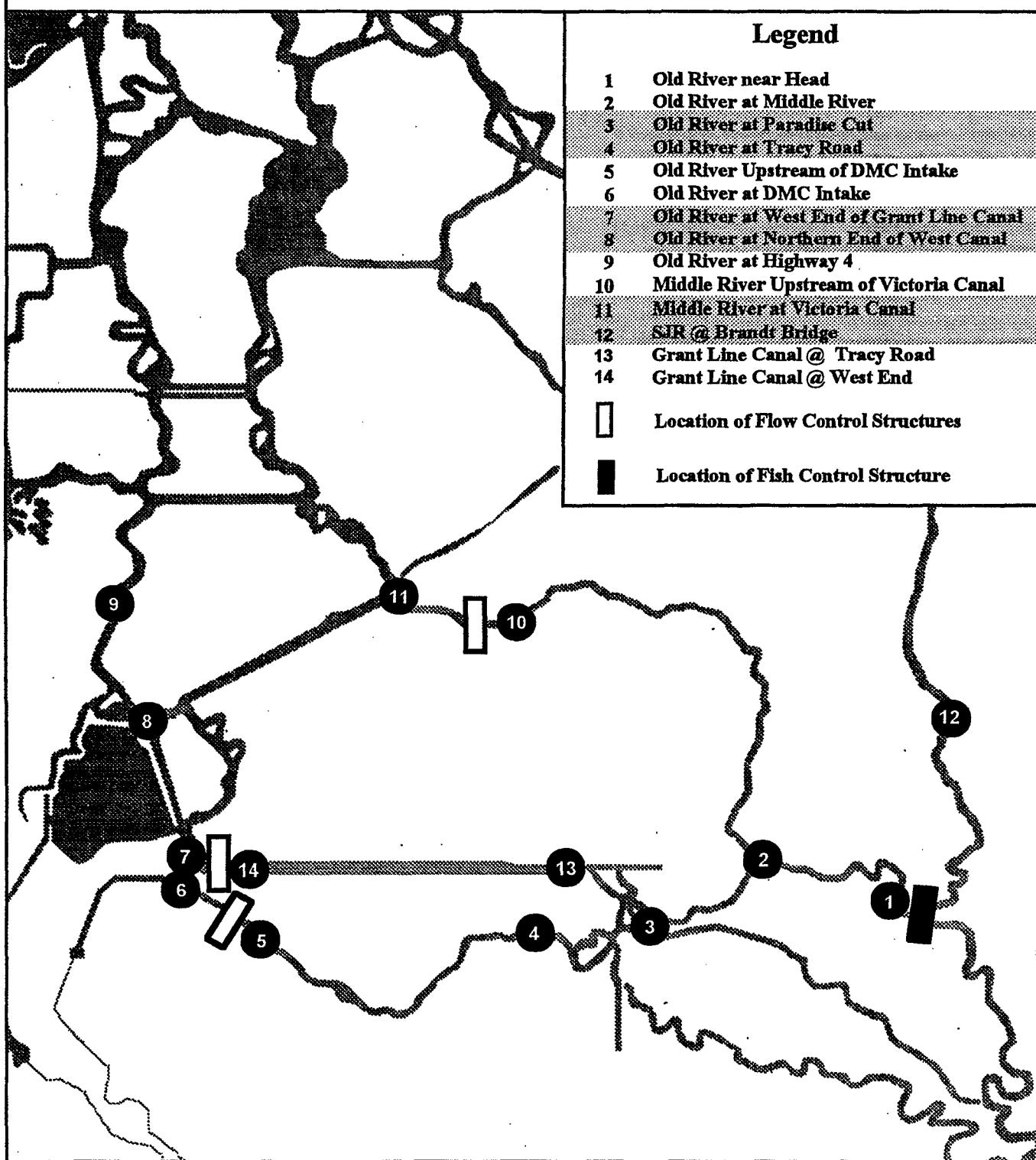


Table 5-6
Minimum Water Levels
 (Values in feet above mean sea level)

Alternative 3X

Old River near Head

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.83	-0.49	-0.55	1.33	1.50	1.74	1.66
1977	0.62	-0.53	-0.48	1.53	1.26	1.63	1.76
1978	6.24	6.24	5.18	3.83	1.95	1.76	2.00
1979	2.42	-0.39	-0.48	2.01	1.66	1.69	1.87
1980	2.67	-0.38	3.26	3.74	2.24	1.78	2.07
1981	1.06	-0.47	-0.51	1.50	1.28	1.70	1.70
1982	10.10	10.10	7.44	4.84	2.14	2.03	3.07
1983	7.95	7.95	8.40	12.80	6.65	2.14	3.80
1984	1.57	-0.42	-0.49	1.92	1.69	1.78	1.92
1985	1.06	-0.48	-0.53	1.50	1.32	1.73	1.72
1986	4.44	4.44	4.00	4.34	1.66	1.75	1.87
1987	0.87	-0.50	0.54	1.27	1.54	1.67	1.65
1988	0.77	-0.51	-0.52	1.55	1.36	1.62	1.80
1989	0.81	-0.58	-0.52	1.51	1.30	1.61	1.72
1990	0.96	-0.49	-0.47	1.50	1.43	1.60	1.63
1991	1.11	-0.46	-0.52	1.55	1.45	1.60	1.83
Avg	2.72	1.44	1.42	2.92	1.90	1.74	2.00

Old River @ Middle River

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.46	-0.44	-0.50	1.31	1.48	1.70	1.60
1977	0.30	-0.47	-0.43	1.50	1.25	1.60	1.74
1978	4.18	4.18	3.37	2.94	1.74	1.67	1.80
1979	1.53	-0.34	-0.43	1.77	1.59	1.63	1.75
1980	1.70	-0.33	2.07	2.86	1.93	1.68	1.90
1981	0.61	-0.42	-0.46	1.45	1.26	1.67	1.63
1982	6.49	6.49	5.04	3.60	1.86	1.81	2.45
1983	4.92	4.92	5.19	8.35	4.90	1.88	2.98
1984	0.97	-0.37	-0.43	1.77	1.62	1.68	1.79
1985	0.60	-0.43	-0.47	1.45	1.30	1.68	1.65
1986	2.90	2.90	2.56	3.27	1.59	1.66	1.76
1987	0.48	-0.45	-0.48	1.26	1.52	1.63	1.59
1988	0.41	-0.46	-0.47	1.52	1.35	1.59	1.77
1989	0.41	-0.53	-0.46	1.48	1.28	1.57	1.65
1990	0.54	-0.44	-0.42	1.48	1.41	1.57	1.58
1991	0.65	-0.42	-0.47	1.52	1.43	1.57	1.79
Avg	1.70	0.84	0.83	2.35	1.72	1.66	1.84

Department of Water Resources, Delta Modeling Section

Table 5-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3X

Old River near Paradise Cut

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.20	-0.37	-0.42	1.28	1.46	1.71	1.53
1977	0.10	-0.40	-0.35	1.48	1.22	1.60	1.73
1978	2.46	2.46	1.92	2.43	1.65	1.59	1.70
1979	0.85	-0.27	-0.35	1.66	1.53	1.56	1.65
1980	0.95	-0.26	1.16	2.36	1.79	1.60	1.75
1981	0.30	-0.34	-0.38	1.42	1.23	1.67	1.56
1982	3.58	3.58	3.02	2.88	1.73	1.71	2.11
1983	2.61	2.61	2.70	4.51	3.82	1.75	2.52
1984	0.53	-0.29	-0.36	1.65	1.54	1.59	1.68
1985	0.29	-0.36	-0.40	1.43	1.27	1.69	1.57
1986	1.68	1.68	1.45	2.66	1.52	1.58	1.66
1987	0.22	-0.37	-0.41	1.22	1.51	1.64	1.52
1988	0.17	-0.38	-0.39	1.50	1.32	1.59	1.74
1989	0.14	-0.45	-0.39	1.46	1.25	1.58	1.57
1990	0.25	-0.36	-0.34	1.46	1.39	1.57	1.51
1991	0.32	-0.34	-0.39	1.50	1.41	1.57	1.76
Avg	0.92	0.38	0.38	1.93	1.60	1.63	1.72

Old River @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.33	-0.06	-0.14	1.18	1.45	1.71	1.42
1977	0.23	-0.11	-0.04	1.48	1.13	1.60	1.77
1978	2.42	2.42	1.87	2.10	1.48	1.41	1.54
1979	0.89	0.03	-0.07	1.52	1.36	1.37	1.50
1980	0.98	0.03	1.15	2.03	1.61	1.45	1.60
1981	0.40	-0.04	-0.10	1.30	1.15	1.67	1.44
1982	2.75	2.75	2.96	2.45	1.56	1.55	1.85
1983	1.94	1.94	1.97	3.39	3.25	1.55	2.21
1984	0.60	0.00	-0.07	1.50	1.38	1.44	1.54
1985	0.38	-0.06	-0.13	1.30	1.18	1.69	1.45
1986	1.65	1.65	1.41	2.27	1.37	1.43	1.53
1987	0.32	-0.08	-0.13	1.14	1.50	1.63	1.40
1988	0.29	-0.08	-0.10	1.49	1.32	1.58	1.79
1989	0.26	-0.20	-0.11	1.46	1.15	1.58	1.46
1990	0.35	-0.08	-0.01	1.45	1.38	1.57	1.40
1991	0.43	-0.03	-0.09	1.50	1.40	1.57	1.80
Avg	0.89	0.51	0.52	1.72	1.48	1.55	1.61

Department of Water Resources, Delta Modeling Section

Table 5-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3X

Old River Upstream of DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.55	0.18	0.11	1.10	1.44	1.60	1.19
1977	0.45	0.14	0.19	1.43	1.04	1.53	1.63
1978	2.35	2.35	1.80	1.69	1.27	1.18	1.30
1979	0.97	0.27	0.18	1.31	1.14	1.15	1.25
1980	1.04	0.27	1.19	1.63	1.36	1.21	1.32
1981	0.57	0.20	0.15	1.12	1.04	1.57	1.20
1982	1.80	1.80	2.89	1.91	1.32	1.32	1.49
1983	1.19	1.19	1.17	2.07	2.52	1.30	1.79
1984	0.74	0.25	0.18	1.26	1.16	1.21	1.27
1985	0.55	0.18	0.13	1.12	1.06	1.58	1.21
1986	1.64	1.64	1.40	1.80	1.16	1.20	1.27
1987	0.55	0.16	0.12	1.07	1.48	1.54	1.18
1988	0.51	0.16	0.15	1.44	1.32	1.52	1.64
1989	0.43	0.08	0.14	1.43	1.03	1.52	1.22
1990	0.57	0.17	0.22	1.41	1.38	1.51	1.18
1991	0.60	0.20	0.15	1.44	1.39	1.51	1.65
Avg	0.91	0.58	0.64	1.45	1.32	1.40	1.36

Old River @ DMC Intake

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.39	-0.54	-0.57	-0.98	-0.99	-0.96	-0.98
1977	-0.42	-0.56	-0.54	-0.95	-1.00	-0.97	-0.97
1978	0.41	0.41	0.16	-0.90	-0.98	-1.01	-0.99
1979	-0.15	-0.45	-0.50	-0.94	-1.00	-1.02	-0.98
1980	-0.12	-0.44	-0.05	-0.91	-0.96	-0.98	-0.97
1981	-0.35	-0.52	-0.54	-1.00	-1.02	-0.99	-0.99
1982	1.65	1.65	0.66	0.88	-0.96	-0.96	-0.98
1983	1.08	1.08	1.06	1.87	-0.79	-0.97	-0.81
1984	-0.24	-0.47	-0.51	-0.95	-0.98	-0.98	-0.98
1985	-0.35	-0.53	-0.54	-1.00	-1.01	-0.98	-0.98
1986	0.12	0.12	0.03	-0.90	-0.98	-0.98	-0.97
1987	-0.37	-0.53	-0.56	-1.00	-1.00	-0.97	-0.99
1988	-0.41	-0.55	-0.56	-0.96	-1.00	-0.97	-0.97
1989	-0.42	-0.59	-0.54	-0.98	-1.02	-1.01	-0.98
1990	-0.36	-0.53	-0.53	-0.95	-0.99	-0.97	-0.99
1991	-0.33	-0.52	-0.56	-0.95	-0.99	-0.97	-0.97
Avg	-0.04	-0.19	-0.26	-0.77	-0.98	-0.98	-0.97

Table 5-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3X

Old River @ West End of Grant Line Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.38	-0.53	-0.56	-0.95	-0.96	-0.94	-0.95
1977	-0.41	-0.55	-0.53	-0.93	-0.97	-0.94	-0.94
1978	0.41	0.41	0.17	-0.86	-0.94	-0.97	-0.95
1979	-0.14	-0.44	-0.49	-0.90	-0.96	-0.98	-0.95
1980	-0.11	-0.43	-0.04	-0.88	-0.92	-0.94	-0.93
1981	-0.34	-0.51	-0.53	-0.96	-0.98	-0.96	-0.95
1982	1.64	1.64	0.67	-0.83	-0.93	-0.92	-0.94
1983	1.08	1.08	1.06	-1.85	-0.75	-0.94	-0.77
1984	-0.24	-0.46	-0.50	-0.91	-0.95	-0.95	-0.94
1985	-0.34	-0.52	-0.53	-0.96	-0.98	-0.95	-0.95
1986	0.12	0.12	0.04	-0.86	-0.94	-0.95	-0.93
1987	-0.36	-0.52	-0.55	-0.97	-0.97	-0.95	-0.95
1988	-0.40	-0.54	-0.55	-0.93	-0.97	-0.94	-0.94
1989	-0.41	-0.58	-0.53	-0.95	-0.99	-0.98	-0.94
1990	-0.35	-0.52	-0.52	-0.93	-0.96	-0.94	-0.95
1991	-0.32	-0.50	-0.54	-0.92	-0.96	-0.94	-0.94
Avg	-0.03	-0.18	-0.25	-0.74	-0.95	-0.95	-0.93

Old River @ Northern End of West Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.41	-0.52	-0.55	-0.87	-0.90	-0.87	-0.87
1977	-0.43	-0.53	-0.52	-0.86	-0.89	-0.88	-0.88
1978	0.22	0.22	0.02	-0.79	-0.87	-0.89	-0.88
1979	-0.21	-0.43	-0.48	-0.83	-0.88	-0.90	-0.87
1980	-0.19	-0.41	-0.13	-0.81	-0.85	-0.86	-0.85
1981	-0.37	-0.50	-0.51	-0.88	-0.90	-0.89	-0.87
1982	1.32	1.32	0.44	-0.76	-0.85	-0.85	-0.86
1983	0.84	0.84	0.80	-1.37	-0.67	-0.86	-0.70
1984	-0.28	-0.45	-0.49	-0.84	-0.87	-0.87	-0.86
1985	-0.38	-0.51	-0.52	-0.89	-0.90	-0.88	-0.87
1986	0.00	0.00	-0.07	-0.79	-0.86	-0.87	-0.86
1987	-0.39	-0.51	-0.53	-0.89	-0.90	-0.88	-0.87
1988	-0.42	-0.53	-0.53	-0.87	-0.90	-0.88	-0.87
1989	-0.44	-0.56	-0.51	-0.89	-0.90	-0.91	-0.87
1990	-0.38	-0.51	-0.51	-0.86	-0.89	-0.88	-0.87
1991	-0.36	-0.49	-0.53	-0.86	-0.89	-0.88	-0.88
Avg	-0.12	-0.22	-0.29	-0.71	-0.87	-0.88	-0.86

Department of Water Resources, Delta Modeling Section

Table 5-6 (cont.)
Minimum Water Levels
 (Values in feet above mean sea level)

Alternative 3X

Old River @ Highway 4

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.41	-0.48	-0.50	-0.78	-0.80	-0.78	-0.78
1977	-0.43	-0.49	-0.48	-0.77	-0.80	-0.78	-0.78
1978	0.05	0.05	0.11	0.68	0.77	-0.80	-0.78
1979	-0.26	-0.38	-0.43	-0.73	-0.79	-0.81	-0.77
1980	-0.24	-0.37	-0.20	-0.70	-0.75	-0.77	-0.75
1981	-0.38	-0.45	-0.47	-0.79	-0.81	-0.80	-0.78
1982	1.00	1.00	0.23	-0.65	-0.75	-0.75	-0.76
1983	0.61	0.61	0.55	0.89	-0.55	-0.77	0.59
1984	-0.30	-0.40	-0.44	-0.74	-0.78	-0.77	-0.77
1985	-0.38	-0.46	-0.47	-0.79	-0.81	-0.79	-0.77
1986	-0.11	-0.11	-0.16	-0.68	-0.77	-0.77	-0.76
1987	0.39	0.46	0.49	0.80	0.81	0.79	0.78
1988	-0.42	-0.49	-0.49	-0.77	-0.81	-0.78	-0.78
1989	-0.44	-0.51	-0.47	-0.79	-0.82	-0.82	-0.77
1990	0.39	0.46	0.47	0.77	-0.80	-0.78	0.78
1991	-0.37	-0.45	-0.49	-0.77	-0.80	-0.78	-0.78
Avg	-0.18	-0.24	-0.31	-0.65	-0.78	-0.78	-0.76

Middle River Upstream of Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	1.74	1.61	1.38	1.38	1.56	1.85	1.80
1977	1.60	1.48	1.62	1.57	1.37	1.76	1.88
1978	4.16	4.16	3.33	1.39	1.09	1.75	1.15
1979	2.25	1.73	1.53	1.13	1.59	1.72	1.90
1980	2.32	1.76	2.41	1.34	1.16	1.80	2.06
1981	1.84	1.65	1.49	1.44	1.35	1.78	1.80
1982	1.14	1.14	4.92	1.54	1.13	1.15	1.26
1983	0.76	0.76	0.71	1.12	1.97	1.13	1.52
1984	1.99	1.66	1.52	1.76	1.61	1.78	1.93
1985	1.79	1.63	1.47	1.45	1.39	1.80	1.82
1986	3.05	3.05	2.69	1.46	1.59	1.76	1.94
1987	1.75	1.56	1.45	1.34	1.60	1.77	1.76
1988	1.74	1.62	1.52	1.60	1.45	1.74	1.88
1989	1.60	1.37	1.48	1.56	1.35	1.70	1.85
1990	1.78	1.61	1.64	1.53	1.50	1.73	1.75
1991	1.84	1.65	1.49	1.59	1.52	1.74	1.90
Avg	1.96	1.78	1.92	1.45	1.45	1.69	1.76

Department of Water Resources, Delta Modeling Section

Table 5-6 (cont.)
Minimum Water Levels
 (Values in feet above mean sea level)

Alternative 3X

Middle River @ Victoria Canal

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.46	-0.52	-0.55	-0.82	-0.85	-0.82	-0.82
1977	-0.47	-0.53	-0.52	-0.81	-0.84	-0.83	-0.82
1978	0.02	0.02	-0.15	-0.73	-0.81	-0.84	-0.82
1979	-0.30	-0.43	-0.48	-0.77	-0.83	-0.84	-0.81
1980	-0.29	-0.42	-0.24	-0.74	-0.79	-0.81	-0.80
1981	-0.43	-0.50	-0.51	-0.83	-0.85	-0.84	-0.82
1982	1.08	1.08	0.21	-0.69	-0.79	-0.79	-0.80
1983	0.66	0.66	0.60	1.02	-0.62	-0.80	0.64
1984	-0.35	-0.45	-0.49	-0.78	-0.82	-0.81	-0.81
1985	-0.43	-0.51	-0.52	-0.83	-0.85	-0.83	-0.82
1986	-0.15	-0.15	-0.20	-0.72	-0.81	-0.81	-0.80
1987	0.44	0.51	-0.53	-0.84	-0.85	-0.83	-0.82
1988	-0.47	-0.53	-0.53	-0.82	-0.85	-0.83	-0.82
1989	-0.48	-0.55	-0.51	-0.84	-0.85	-0.86	-0.81
1990	-0.43	-0.51	-0.52	-0.81	-0.84	-0.83	-0.82
1991	-0.42	-0.50	-0.53	-0.81	-0.84	-0.83	-0.83
Avg	-0.21	-0.27	-0.34	-0.68	-0.82	-0.83	-0.80

SJR @ Brandt Bridge

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.19	0.97	0.70	0.02	0.13	0.25	0.18
1977	0.08	0.72	0.75	0.16	0.00	0.20	0.27
1978	4.17	4.17	3.29	1.73	0.36	0.20	0.36
1979	1.12	3.42	3.84	0.42	0.15	0.16	0.30
1980	1.39	3.92	1.81	1.66	0.56	0.24	0.42
1981	0.31	1.27	0.97	0.08	0.00	0.22	0.20
1982	7.23	7.23	4.84	2.42	0.46	0.39	1.05
1983	5.41	5.41	5.76	9.50	3.91	0.44	1.62
1984	0.68	2.13	2.23	0.33	0.18	0.23	0.33
1985	0.31	1.28	1.04	0.08	0.01	0.24	0.22
1986	2.49	2.49	2.17	2.01	0.17	0.22	0.31
1987	0.22	1.04	0.76	0.00	0.14	0.21	0.17
1988	0.15	0.93	0.76	0.16	0.06	0.19	0.29
1989	0.16	1.08	1.06	0.14	0.00	0.17	0.22
1990	0.26	1.14	1.05	0.14	0.09	0.18	0.16
1991	0.35	1.32	1.11	0.17	0.10	0.18	0.31
Avg	1.53	2.41	2.01	1.19	0.40	0.23	0.40

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Table 5-6 (cont.)
Minimum Water Levels

(Values in feet above mean sea level)

Alternative 3X

Grant Line Canal @ Tracy Road

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	0.10	-0.37	-0.42	1.23	1.39	1.59	1.53
1977	0.02	-0.39	-0.36	1.41	1.17	1.50	1.63
1978	2.04	2.04	1.56	2.43	1.70	1.57	1.76
1979	0.67	-0.27	-0.34	1.72	1.48	1.51	1.70
1980	0.75	-0.26	0.93	2.36	1.84	1.62	1.80
1981	0.19	-0.34	-0.38	1.35	1.18	1.55	1.56
1982	3.19	3.19	2.54	2.85	1.79	1.77	2.12
1983	2.30	2.30	2.37	3.97	3.76	1.79	2.52
1984	0.39	-0.29	-0.35	1.70	1.51	1.61	1.73
1985	0.18	-0.35	-0.39	1.34	1.22	1.57	1.59
1986	1.36	1.36	1.16	2.64	1.48	1.58	1.71
1987	0.12	-0.37	-0.40	1.18	1.42	1.53	1.51
1988	0.07	-0.38	-0.39	1.43	1.28	1.49	1.66
1989	0.05	-0.45	-0.38	1.39	1.19	1.46	1.59
1990	0.15	-0.36	-0.34	1.39	1.33	1.47	1.49
1991	0.21	-0.34	0.39	1.43	1.34	1.48	1.68
Avg	0.74	0.30	0.28	1.86	1.57	1.57	1.72

Grant Line Canal @ West End

Year	Apr (1-15)	Apr (16-30)	May	Jun	Jul	Aug	Sep
1976	-0.14	-0.41	-0.45	1.24	1.42	1.57	1.54
1977	-0.19	-0.43	-0.40	1.44	1.18	1.51	1.58
1978	1.05	1.05	0.72	2.29	1.66	1.58	1.70
1979	0.20	-0.31	-0.37	1.67	1.53	1.54	1.65
1980	0.24	-0.30	0.35	2.21	1.79	1.60	1.74
1981	-0.08	-0.38	-0.41	1.38	1.19	1.55	1.57
1982	2.26	2.26	1.41	2.64	1.73	1.71	2.00
1983	1.57	1.57	1.58	2.69	3.47	1.72	2.37
1984	0.04	-0.33	-0.38	1.65	1.55	1.60	1.68
1985	-0.09	-0.39	-0.42	1.38	1.23	1.56	1.58
1986	0.62	0.62	0.49	2.46	1.53	1.59	1.66
1987	-0.12	-0.40	-0.43	1.18	1.46	1.53	1.54
1988	-0.16	-0.42	-0.43	1.45	1.29	1.50	1.60
1989	-0.19	-0.47	-0.41	1.42	1.21	1.49	1.58
1990	-0.11	-0.40	-0.39	1.41	1.35	1.49	1.53
1991	-0.07	-0.38	-0.42	1.45	1.37	1.49	1.62
Avg	0.30	0.06	0.00	1.75	1.56	1.56	1.68

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